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Distribution of Phytoplankton in Illinois Lakes

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This is a data report presenting the species and abundance of phytoplankton in the 31 lakes sampled by the National Eutrophication Survey in the State of Illinois. Results from the calculation of several water quality indices are also included (Nygaard's Trophic State Index, Palmer's Organic Pollution Index, and species diversity and abundance indices).

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DISTRIBUTION OF PHYTOPLANKTON IN ILLINOIS LAKES

by

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FOREWORD

Protection of the environment requires effective regulatory actions which are based on sound technical and scientific information. This information must include the quantitative description and linking of pollutant sources, transport mechanisms, interactions, and resulting effects on man and his environment. Because of the complexities involved, assessment of specific pollutants in the environment requires a total systems approach which transcends the media of air, water, and land. The Environmental Monitoring and Support Laboratory-Las Vegas contributes to the formation and enhancement of a sound integrated monitoring data base through multidisciplinary, multimedia programs designed to:

- develop and optimize systems and strategies for monitoring pollutants and their impact on the environment
- demonstrate new monitoring systems and technologies by applying them to fulfill special monitoring needs of the Agency's operating programs

This report presents the species and abundance of phytoplankton in the 31 lakes sampled by the National Eutrophication Survey in the State of Illinois, along with results from the calculation of several commonly used biological indices of water quality and community structure. These data can be used to biologically characterize the study lakes, and as baseline data for future investigations. This report was written for use by Federal, State, and local governmental agencies concerned with water quality analysis, monitoring, and/or regulation. Private industry and individuals similarly involved with the biological aspects of water quality will find the document useful. For further information contact the Water and Land Quality Branch, Monitoring Operations Division.

George B. Morgan

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Director
Environmental Monitoring and Support Laboratory
Las Vegas

CONTENTS

Page

Foreword iii

Introduction 1

Materials and Methods 3

Lake and Site Selection 3

Sample Preparation 3

Examination 4

Quality Control 5

Results 6

Nygaard's Trophic State Indices 6

Palmer's Organic Pollution Indices 6

Species Diversity and Abundance Indices 8

Species Occurrence and Abundance 9

Literature Cited 10

Appendix. Summary of Phytoplankton Data 11

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INTRODUCTION

The collection and analysis of phytoplankton data were included in the National Eutrophication Survey in an effort to determine relationships between algal characteristics and trophic status of individual lakes.

During spring, summer, and fall of 1973, the Survey sampled 250 lakes in 17 States. Over 700 algal species and varieties were identified and enumerated from the 743 water samples examined.

This report presents the species and abundance of phytoplankton in the 31 lakes sampled in the State of Illinois (Table 1). The Nygaard's Trophic State (Nygaard 1949), Palmer's Organic Pollution (Palmer 1969), and species diversity and abundance indices are also included.

TABLE 1. LAKES SAMPLED IN THE STATE OF ILLINOIS

STORET #	LAKE NAME	COUNTY
1703	Lake Bloomington	McLean
1706	Lake Carlyle	Clinton, Fayette, Bond
1708	Lake Charleston	Coles
1711	Coffeen Lake	Montgomery
1712	Crab Orchard Lake	Jackson, Williamson
1714	Lake Decatur	Macon
1725	Long Lake	Lake
1726	Lake Lou Yaeger	Montgomery
1727	Lake Marie	Lake
1733	Pistakee Lake	Lake, McHenry
1735	Rend Lake	Franklin, Jefferson
1739	Lake Shelbyville	Shelby, Moultrie
1740	Highland (Silver Lake)	Madison

(Continued)

TABLE 1. LAKES SAMPLED IN THE STATE OF ILLINOIS (Continued)

STORET #	LAKE NAME	COUNTY
1742	Lake Springfield	Sangamon
1748	Vermilion Lake	Vermilion
1750	Wonder Lake	McHenry
1751	Lake Story	Knox
1752	Depue Lake	Bureau
1753	Lake Sangchris	Christian
1754	Lake Holiday	LaSalle
1755	Fox Lake	Lake
1756	Grass Lake	Lake
1757	East Loon Lake	Lake
1758	Slocum Lake	Lake
1759	Cedar Lake	Lake
1761	Lake We-Ma-Tuk	Fulton
1762	Raccoon Lake	Marion
1763	Baldwin Lake	Randolph
1764	Lake Vandalia	Fayette
1765	Old Ben Mine Reservoir	Franklin
1766	Horseshoe Lake	Madison

MATERIALS AND METHODS

LAKE AND SITE SELECTION

Lakes and reservoirs included in the Survey were selected through discussions with State water pollution agency personnel and U.S. Environmental Protection Agency Regional Offices (U.S. Environmental Protection Agency 1975). Screening and selection strongly emphasized lakes with actual or potential accelerated eutrophication problems. As a result, the selection was limited to lakes:

(1) impacted by one or more municipal sewage treatment plant outfalls either directly into the lake or by discharge to an inlet tributary within approximately 40 kilometers of the lake;

(2) 40 hectares or larger in size; and

(3) with a mean hydraulic retention time of at least 30 days.

Specific selection criteria were waived for some lakes of particular State interest.

Sampling sites for a lake were selected based on available information on lake morphometry, potential major sources of nutrient input, and on-site judgment of the field limnologist (U.S. Environmental Protection Agency 1975). Primary sampling sites were chosen to reflect the deepest portion of each major basin in a test lake. Where many basins were present, selection was guided by nutrient source information on hand. At each sampling site, a depth-integrated phytoplankton sample was taken. Depth-integrated samples were uniform mixtures of water from the surface to a depth of 15 feet (4.6 meters) or from the surface to the lower limit of the photic zone representing 1 percent of the incident light, whichever was greater. If the depth at the sampling site was less than 15 feet (4.6 meters), the sample was taken from just off the bottom to the surface. Normally, a lake was sampled three times in 1 year, providing information on spring, summer, and fall conditions.

SAMPLE PREPARATION

To preserve the sample 4 milliliters (ml) of Acid-Lugol's solution (Prescott 1970) were added to each 130-ml sample from each site at the time of collection. The samples were shipped to the Environmental Monitoring and Support Laboratory, Las Vegas, Nevada, where equal volumes from each site were mixed to form two 130-ml composite samples for a given lake. One composite sample was put into storage and the other was used for the examination.

Prior to examination, the composite samples were concentrated by the settling method. Solids were allowed to settle for at least 24 hours prior to siphoning off the supernate. The volume of the removed supernate and the volume of the remaining concentrate were measured and concentrations determined. A small (8 ml) library subsample of the concentrate was then taken. The remaining concentrate was gently agitated to resuspend the plankton and poured into a capped, graduated test tube. If a preliminary examination of a sample indicated the need for a more concentrated sample, the contents of the test tube were further concentrated by repeating the settling method. Final concentrations varied from 15 to 40 times the original.

Permanent slides were prepared from concentrated samples after analysis was complete. A drop of superconcentrate from the bottom of the test tube was placed in a ring of clear Karo® Corn Syrup with phenol (a few crystals of phenol were added to each 100 ml of syrup) on a glass slide, thoroughly mixed, and topped with a coverglass. After the syrup at the edges of the coverglass had hardened, the excess was scraped away and the mount was sealed with clear fingernail polish. Permanent diatom slides were prepared by drying sample material on a coverglass, heating in a muffle furnace at 400° C for 45 minutes, and mounting in Hyrax®. Finally, the mounts were sealed with clear fingernail polish.

Backup samples, library samples, permanent sample slides, and Hyrax®-mounted diatom slides are being stored and maintained at the Environmental Monitoring and Support Laboratory-Las Vegas.

EXAMINATION

The phytoplankton samples were examined with the aid of binocular compound microscopes. A preliminary examination was performed to precisely identify and list all forms encountered. The length of this examination varied depending on the complexity of the sample. An attempt was made to find and identify all of the forms present in each sample. Often forms were observed which could not be identified to species or to genus. Abbreviated descriptions were used to keep a record of these forms (e.g., lunate cell, blue-green filament, Navicula #1). Diatom slides were examined using a standard light microscope. If greater resolution was essential to accurately identify the diatoms, a phase-contrast microscope was used.

After the species list was compiled, phytoplankton were enumerated using a Neubauer Counting Chamber with a 40X objective lens and a 10X ocular lens. All forms within each field were counted. The count was continued until a minimum of 100 fields had been viewed, or until the dominant form had been observed a minimum of 100 times.

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QUALITY CONTROL

Internal quality control intercomparisons on species identifications and counts were performed on a regular basis among project phycologists at the rate of 7 percent. Although an individual had primary responsibility for analyzing a sample, taxonomic problems were discussed among the phycologists.

Additional quality control checks were performed on the Survey samples by Dr. G. W. Prescott of the University of Montana at the rate of 5 percent. Quality control checks were made on 75 percent of these samples to verify species identifications while checks were made on the remaining 25 percent of the samples to verify genus counts. Presently, the agreement between quality control checks for species identification and genus enumerations is satisfactory.

RESULTS

The Appendix summarizes all of the phytoplankton data collected from the State by the Survey. It is organized by lake, including an alphabetical phytoplankton species list with concentrations for individual species given by sampling date. Results from the application of several indices are presented (Nygaard's Trophic State, Palmer's Organic Pollution, and species diversity and abundance). Each lake has been assigned a four-digit STORET number. [STORET (STOrage and RETrieval) is the U.S. Environmental Protection Agency's computer system which processes and maintains water quality data.] The first two digits of the STORET number identify the State; the last two digits identify the lake.

NYGAARD'S TROPHIC STATE INDICES

Five indices devised by Nygaard (1949) were proposed under the assumption that certain algal groups are indicative of levels of nutrient enrichment. These indices were calculated in order to aid in determining the surveyed lakes' trophic status. As a general rule, Cyanophyta, Euglenophyta, centric diatoms, and members of the Chlorococcales are found in waters that are eutrophic (rich in nutrients), while desmids and many pennate diatoms generally cannot tolerate high nutrient levels and so are found in oligotrophic waters (poor in nutrients).

In applying the indices to the Survey data, the number of taxa in each major group was determined from the species list for each sample. The ratios of these groups give numerical values which can be used as a biological index of water richness. The five indices and the ranges of values established for Danish lakes by Nygaard for each trophic state are presented in Table 2. The appropriate symbol, (E) eutrophic and (O) oligotrophic, follows each calculated value in the tables in the Appendix. A question mark (?) following a calculated value in these tables was entered when that value was within the range of both classifications.

PALMER'S ORGANIC POLLUTION INDICES

Palmer (1969) analyzed reports from 165 authors and developed algal pollution indices for use in rating water samples with high organic pollution. Two lists of organic pollution-tolerant forms were prepared, one containing 20 genera, the other, 20 species (Tables 3 and 4). Each form was assigned a pollution index number ranging from 1 for moderately tolerant forms to 6 for extremely tolerant forms. Palmer based the index numbers on occurrence records and/or where emphasized by the authors as being especially tolerant of organic pollution.

TABLE 2. NYGAARD'S TROPHIC STATE INDICES ADAPTED FROM HUTCHINSON (1967)

Index	Calculation	Oligotrophic	Eutrophic
Myxophycean	$\frac{\text{Myxophyceae}}{\text{Desmideae}}$	0.0-0.4	0.1-3.0
Chlorophycean	$\frac{\text{Chlorococcales}}{\text{Desmideae}}$	0.0-0.7	0.2-9.0
Diatom	$\frac{\text{Centric Diatoms}}{\text{Pennate Diatoms}}$	0.0-0.3	0.0-1.75
Euglenophyte	$\frac{\text{Euglenophyta}}{\text{Myxophyceae + Chlorococcales}}$	0.0-0.2	0.0-1.0
Compound	$\frac{\text{Myxophyceae + Chlorococcales + Centric Diatoms + Euglenophyta}}{\text{Desmideae}}$	0.0-1.0	1.2-25

TABLE 3. ALGAL GENUS POLLUTION INDEX (Palmer 1969)

Genus	Pollution Index
Anacystis	1
Ankistrodesmus	2
Chlamydomonas	4
Chlorella	3
Closterium	1
Cyclotella	1
Euglena	5
Gomphonema	1
Lepocinclis	1
Melosira	1
Micractinium	1
Navicula	3
Nitzschia	3
Oscillatoria	5
Pandorina	1
Phacus	2
Phormidium	1
Scenedesmus	4
Stigeoclonium	2
Synedra	2

TABLE 4. ALGAL SPECIES POLLUTION INDEX (Palmer 1969)

Species	Pollution Index
Ankistrodesmus falcatus	3
Arthrospira jenneri	2
Chlorella vulgaris	2
Cyclotella meneghiniana	2
Euglena gracilis	1
Euglena viridis	6
Gomphonema parvulum	1
Melosira varians	2
Navicula cryptocephala	1
Nitzschia acicularis	1
Nitzschia palea	5
Oscillatoria chlorina	2
Oscillatoria limosa	4
Oscillatoria princeps	1
Oscillatoria putrida	1
Oscillatoria tenuis	4
Pandorina morum	3
Scenedesmus quadricauda	4
Stigeoclonium tenue	3
Syndra ulna	3

In analyzing a water sample, any of the 20 genera or species of algae present in concentrations of 50 per milliliter or more are recorded. The pollution index numbers of the algae present are totaled, providing a genus score and a species score. Palmer determined that a score of 20 or more for either index can be taken as evidence of high organic pollution, while a score of 15 to 19 is taken as probable evidence of high organic pollution. Lower figures suggest that the organic pollution of the sample is not high, that the sample is not representative, or that some substance or factor interfering with algal persistence is present and active.

SPECIES DIVERSITY AND ABUNDANCE INDICES

"Information content" of biological samples is being used commonly by biologists as a measure of diversity. Diversity in this connection means the degree of uncertainty attached to the specific identity of any randomly selected individual. The greater the number of taxa and the more equal their proportions, the greater the uncertainty, and hence, the diversity (Pielou 1966). There are several methods of measuring diversity, e.g., the formulas given by Brillouin (1962) and Shannon and Weaver (1963). The method which is appropriate depends on the type of biological sample on hand.

Pielou (1966) classifies the types of biological samples and gives the measure of diversity appropriate for each type. The Survey phytoplankton samples are what she classifies as larger samples (collections in Pielou's terminology) from which random subsamples can be drawn. According to Pielou, the average diversity per individual (H) for these types of samples can be estimated from the Shannon-Wiener formula (Shannon and Weaver 1963):

$$H = -\sum_{i=1}^{S} P_i \log_x P_i$$

where P is the proportion of the ith taxon in the sample, which is calculated from n_i/N; n_i is the number of individuals per milliliter of the ith taxon; N is the total number of individuals per ml; and S is the total number of taxa.

However, Basharin (1959) and Pielou (1966) have pointed out that H calculated from the subsample is a biased estimator of the sample H, and if this bias is to be accounted for, we must know the total number of taxa present in the sample since the magnitude of this bias depends on it.

Pielou (1966) suggests that if the number of taxa in the subsample falls only slightly short of the number in the larger sample, no appreciable error will result in considering S, estimated from the subsample, as being equal to the sample value. Even though considerable effort was made to find and identify all taxa, the Survey samples undoubtedly contain a fair number of rare phytoplankton taxa which were not encountered.

In the Shannon-Wiener formula, an increase in the number of taxa and/or an increase in the evenness of the distribution of individuals among taxa will increase the average diversity per individual from its minimal value of zero. Sager and Hasler (1969) found that the richness of taxa was of minor importance in determination of average diversity per individual for phytoplankton and they concluded that phytoplankton taxa in excess of the 10 to 15 most abundant ones have little effect on H. This was verified by our own calculations. Our counts are in number per milliliter and since logarithms to the base 2 were used in our calculations, H is expressed in units of bits per individual. When individuals of a taxon were so rare that they were not counted, a value of 1/130 per milliliter or 0.008 per milliliter was used in the calculations since at least one individual of the taxon must have been present in the collection.

A Survey sample for a given lake represents a composite of all phytoplankton collected at different sampling sites on a lake during a given sampling period. Since the number of samples (M) making up a composite is a function of both the complexity of the lake sampled and its size, it should affect the richness-of-taxa component of the diversity of our phytoplankton collections. The maximum diversity (MaxH) (i.e., when the individuals are distributed among the taxa as evenly as possible) was estimated from $\log_2 S$, the total diversity (D) was calculated from HN, and the evenness component of diversity (J) was estimated from H/MaxH (Pielou 1966). Also given in the Appendix are L (the mean number of individuals per taxa per milliliter) and K (the number of individuals per milliliter of the most abundant taxon in the sample).

Zand (1976) suggests that diversity indices be expressed in units of "sits", i.e., in logarithms to base S (where S is the total number of taxa in the sample) instead of in "bits", i.e., in logarithms to base 2. Zand points out that the diversity index in sits per individual is a normalized number ranging from 1 for the most evenly distributed samples to 0 for the least evenly distributed samples. Also, it can be used to compare different samples, independent of the number of taxa in each. The diversity in bits per individual should not be used in direct comparisons involving various samples which have different numbers of species. Since MaxH equals log S, the expression in sits is equal to $\log_S S$, or 1. Therefore diversity in sits per individual is numerically equivalent to J, the evenness component for the Shannon-Wiener formula.

SPECIES OCCURRENCE AND ABUNDANCE

The alphabetic phytoplankton species list for each lake, presented in the Appendix, gives the concentrations of individual species by sampling date. Concentrations are in cells, colonies, or filaments (CEL, COL, FIL) per milliliter. An "X" after a species name indicates the species identified in the preliminary examination was in such a low concentration that it did not appear in the count. A blank space indicates that the organism was not found in the sample collected on that date. Column S is used to designate the examiner's subjective opinion of the five dominant taxa in a sample, based upon relative size and concentration of the organism. The percent column (%C) presents, by abundance, the percentage composition of each taxon.

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APPENDIX. SUMMARY OF PHYTOPLANKTON DATA

This appendix was generated by computer. Because it was only possible to use upper case letters in the printout, all scientific names are printed in upper case and are not italicized.

The alphabetic phytoplankton lists include taxa without species names (e.g., EUNOTIA, EUNOTIA #1, FLAGELLATE, FLAGELLATES, MICROSYSTIS INCERTA ?, CHLOROPHYTAN COCCOID CELLED COLONY). When species determinations were not possible, symbols or descriptive phrases were used to separate taxa for enumeration purposes. Each name on a list, however, represents a unique species different from any other name on the same list, unless otherwise noted, for counting purposes.

Numbers were used to separate unidentified species of the same genus. A generic name listed alone is also a unique species. A question mark (?) is placed immediately after the portion of a name which was assigned with uncertainty. Numbered, questioned, or otherwise designated taxa were established on a lake-by-lake basis; therefore NAVICULA #2 from lake A cannot be compared to NAVICULA #2 from lake B. Pluralized categories (e.g., FLAGELLATES, CENTRIC DIATOMS, SPP.) were used for counting purposes when taxa could not be properly differentiated on the counting chamber.

```
LAKE NAME: LAKE BLOCMINGTON
STCRET NUMBER: 1703


                                 NYGAARD TROPHIC STATE INDICES

                         DATE    05 11 73   08 09 73   10 17 7

                  MYXOPHYCEAN     01/0 E     4.00 E     0.75 E
                CHLOROPHYCEAN     02/0 E     6.00 E     1.50 E
                 EUGLENOPHYTE     0.67 E     0.30 E     0.33 E
                       DIATOM     2.50 E     5.00 E     02/0 E
                     COMPOUND     10/0 E     18.0 E     3.50 E


                               PALMER'S ORGANIC POLLUTION INDICES

                         DATE    05 11 73   08 09 73   10 17 73

                        GENUS          01         09         07
                      SPECIES          00         00         00


                             SPECIES DIVERSITY AND ABUNDANCE INDICES

                         DATE    05 11 73   08 09 73   10 17 73

              AVERAGE DIVERSITY     H      1.98       2.54       C.93
                 NUMBER OF TAXA     S     18.00      24.00      22.00
    NUMBER OF SAMPLES COMPOSITED    M      2.00       2.00       2.00
            MAXIMUM DIVERSITY    MAXH      4.17       4.58       4.46
                TOTAL DIVERSITY     D   5635.08   12364.72    8347.68
   TOTAL NUMBER OF INDIVIDUALS/ML   N   2846.00    4868.00    8976.00
             EVENESS COMPONENT      J      0.47       0.55       0.21
  MEAN NUMBER OF INDIVIDUALS/TAXA   L    158.11     202.83     408.00
 NUMBER/ML OF MOST ABUNDANT TAXON   K   1563.00    2549.00    7747.00
```

LAKE NAME: LAKE BLOOMINGTON CONTINUED
STORET NUMBER: 1703

TAXA	FORM	05 11 73			08 09 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL			X						
ANABAENA	FIL									X
APHANIZOMENON	FIL							4	3.7	332
CENTRIC DIATOMS	CEL					4.7	228			
CERATIUM HIRUNDINELLA	CEL									X
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X			
CHLOROPHYTAN LUNATE CELL	CEL		2.5	70						
CLOSTERIUM #1	CEL									X
CLOSTERIUM #2	CEL					0.8	38			X
CLOSTERIUM ACUTUM	CEL									X
CLOSTERIUM SPP.	CEL							1	86.3	7747
COELASTRUM MICROPORUM	COL								0.3	26
COELASTRUM RETICULATUM	COL					0.8	38	3	1.4	128
CRUCIGENIA CRUCIFERA	COL						X			
CRUCIGENIA QUADRATA	COL						X			
CRYPTOMONAS	CEL	3	4.1	117		3.1	152	5	2.0	179
CYANOPHYTAN FILAMENT	FIL					0.8	38			
CYCLOTELLA MENEGHINIANA	CEL		1.7	47						
CYCLOTELLA STELLIGERA	CEL						X	2	4.3	384
DACTYLOCOCCOPSIS	CEL						X			
DINOFLAGELLATE	CEL		0.8	23						
DINOFLAGELLATE #1	CEL			X						
ELAKATOTHRIX ?	CEL					0.8	38			
EUGLENA	CEL			X						
EUGLENA #1	CEL									X
EUGLENA #2	CEL				5	3.9	190			
FLAGELLATE	CEL					3.1	152			
FLAGELLATE #1	CEL	4	9.8	280						
GLENODINIUM GYMNODINIUM	CEL						X			X
KIRCHNERIELLA	CEL		0.8	23						
MELOSIRA DISTANS	CEL	2	22.9	653	2	14.1	685			

LAKE NAME: LAKE BLOOMINGTON
STORET NUMBER: 1703

CONTINUED

TAXA	FORM	05 11 73			08 09 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA GRANULATA	CEL	5	1.7	47	4	4.7	228			X
MELOSIRA ITALICA	CEL			X						
MERISMOPEDIA	COL					3.9	190			
MICROCYSTIS INCERTA	COL				1	52.4	2549			
NAVICULA	CEL			X						
OOCYSTIS	CEL									X
OSCILLATORIA	FIL			X					1.1	102
PANDORINA MORUM	COL			X						
PEDIASTRUM DUPLEX V. ?	COL								0.3	26
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL									X
PHACUS	CEL						X		0.3	26
SCENEDESMUS DIMORPHUS	COL									X
SCHROEDERIA SETIGERA	CEL					0.8	38			
SPHAEROCYSTIS	COL					0.8	38			
STAURASTRUM	CEL								0.3	26
STEPHANODISCUS	CEL						X			
STEPHANODISCUS ASTRAEA	CEL	1	54.9	1563						
SYNEDRA	CEL		0.8	23						
SYNEDRA ACUS ?	CEL				3	5.5	266			
TRACHELOMONAS	CEL						X			
TRACHELOMONAS #1	CEL									X
TRACHELOMONAS URCEOLATA	CEL			X						
TOTAL				2846			4868			8976

LAKE NAME: LAKE CARLYLE
STORET NUMBER: 1706

NYGAARD TROPHIC STATE INDICES

DATE	05 08 73	08 10 73	10 18 73
MYXOPHYCEAN	0/01 O	1.00 E	5.00 E
CHLOROPHYCEAN	12.0 E	5.00 E	7.00 E
EUGLENOPHYTE	0.33 E	1.33 E	0.17 ?
DIATOM	1.14 E	1.00 E	1.33 E
COMPOUND	24.0 E	18.0 E	18.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 08 73	08 10 73	10 18 73
GENUS	10	04	09
SPECIES	09	03	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 08 73	08 10 73	10 18 73
AVERAGE DIVERSITY	H	3.00	3.06	3.23
NUMBER OF TAXA	S	36.00	27.00	26.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.17	4.75	4.70
TOTAL DIVERSITY	D	20400.00	9626.76	7939.34
TOTAL NUMBER OF INDIVIDUALS/ML	N	6800.00	3146.00	2458.00
EVENESS COMPONENT	J	0.58	0.64	0.69
MEAN NUMBER OF INDIVIDUALS/TAXA	L	188.89	116.52	94.54
NUMBER/ML OF MOST ABUNDANT TAXON	K	1892.00	833.00	707.00

LAKE NAME: LAKE CARLYLE
STORET NUMBER: 1706

CONTINUED

TAXA	FORM	05 08 73 S	05 08 73 %C	05 08 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
ACTINASTRUM GRACILIMUM ?	CEL			X						
ANKISTRODESMUS FALCATUS	CEL		0.9	64		3.6	114			
ASTERIONELLA FORMOSA										
V. GRACILLIMA ?	CEL			X						
CHLAMYDOMONAS ?	CEL						X			
CLOSTERIUM	CEL			X			X			
CLOSTERIUM CERATIUM	CEL									X
COCCOID CELL	CEL				1	26.5	833			
CRUCIGENIA APICULATA	COL				5	4.8	152			
CRUCIGENIA TETRAPEDIA	COL		0.3	21						
CRYPTOMONAS	CEL		0.6	42		2.4	76		1.5	37
CRYPTOMONAS OVATA	CEL	3	8.4	574						
CYCLOTELLA	CEL				2	16.8	530			
CYCLOTELLA MENEGHINIANA	CEL		0.9	64						
DICTYOSPHAERIUM PULCHELLUM	COL						X			
DINOBRYON	CEL									X
EUGLENA	CEL			X						
EUGLENA #1	CEL					1.2	38			
EUGLENA #2	CEL						X			
EUGLENA ACUS	CEL						X			
EUGLENA GRACILIS	CEL						X			
FLAGELLATE ?	CEL								2.3	56
FLAGELLATE #1	CEL	1	27.8	1892		4.8	152	4	5.3	130
GLENODINIUM	CEL		0.9	64						
GOLENKINIA	CEL									X
GOMPHONEMA	CEL									X
GOMPHONEMA ?	CEL		0.6	42						
KIRCHNERIELLA	CEL								2.3	56
MALLOMONAS	CEL								1.5	37
MELOSIRA #4	CEL	5	9.4	638	3	15.6	492			
MELOSIRA DISTANS	CEL	4	16.9	1148				1	18.9	465
MELOSIRA DISTANS ?	CEL				4	14.5	455			

LAKE NAME: LAKE CARLYLE
STORET NUMBER: 1706

CONTINUED

TAXA	FORM	05 08 73 S	05 08 73 %C	05 08 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
MELOSIRA GRANULATA	CEL		0.9	64		2.4	76			X
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL		0.6	42						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL								1.5	37
MELOSIRA VARIANS	CEL		0.6	42						
MERISMOPEDIA	COL							3	18.2	447
MERISMOPEDIA TENUISSIMA	COL									X
MICROCYSTIS INCERTA	COL								3.8	93
NAVICULA	CEL			X				2	28.8	707
NITZSCHIA	CEL									X
NITZSCHIA #1	CEL		0.6	42						
NITZSCHIA HOLSATICA	CEL						X			
OSCILLATORIA	FIL						X		0.8	19
PEDIASTRUM SIMPLEX	COL			X						
PENNATE DIATOMS	CEL					4.8	152			
PHACUS #1	CEL						X			
PHACUS #2	CEL			X						
PHACUS ACUMINATUS	CEL						X			
PHACUS PYRUM	CEL		0.3	21						
PHACUS SPP.	CEL								0.8	19
RAPHIDIOPSIS CURVATA	FIL								2.3	56
SCENEDESMUS	CEL			X						
SCENEDESMUS #1	COL		0.9	64						
SCENEDESMUS ABUNDANS	COL		0.3	21						
SCENEDESMUS BICAUDATUS	COL					1.2	38	5	3.8	93
SCENEDESMUS BIJUGA	COL		0.3	21					3.1	75
SCENEDESMUS DIMORPHUS	COL						X		0.8	19
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL		0.3	21						
SCENEDESMUS QUADRICAUDA	COL		0.9	64						
STEPHANODISCUS	CEL			X					1.5	37

LAKE NAME: LAKE CARLYLE
STORET NUMBER: 1706

CONTINUED

TAXA	FORM	05 08 73 S	05 08 73 %C	05 08 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 19 73 S	10 19 73 %C	10 19 73 ALGAL UNITS PER ML
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL	2	23.1	1573						
SYNEDRA ?	CEL					1.2	38			
SYNEDRA #1	CEL						X			
SYNEDRA ACUS	CEL			X						
SYNEDRA DELICATISSIMA	CEL		3.7	255						
SYNEDRA ULNA	CEL			X						
TETRAEDRON MINIMUM	CEL								0.8	19
TETRASTRUM	CEL		0.3	21						
TETRASTRUM ?	COL			X						
TETRASTRUM STAUROGENIAEFORME	COL								2.3	56
TRACHELOMONAS PULCHELLA	CEL						X			
TRACHELOMONAS SCABRA V. ?	CEL			X						
TRACHELOMONAS URCEOLATA	CEL						X			
TOTAL				6800			3146			2458

LAKE NAME: LAKE CHARLESTON
STORET NUMBER: 1708

NYGAARD TRCPHIC STATE INDICES

DATE	05 07 73	08 09 73	10 08 73
MYXOPHYCEAN	01/0 E	02/0 E	02/0 E
CHLOROPHYCEAN	0/0 0	03/0 E	01/0 E
EUGLENOPHYTE	1.00 E	1.00 E	2.00 E
DIATOM	0.20 ?	0.80 E	1.50 E
COMPOUND	03/0 E	14/0 E	12/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 07 73	08 09 73	10 08 73
GENUS	10	06	20
SPECIES	03	01	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 07 73	08 09 73	10 08 73
AVERAGE DIVERSITY	H	2.61	2.02	2.38
NUMBER OF TAXA	S	10.00	24.00	16.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	3.32	4.58	4.00
TOTAL DIVERSITY	D	1832.22	9803.06	21372.40
TOTAL NUMBER OF INDIVIDUALS/ML	N	702.00	4853.00	8980.00
EVENESS COMPONENT	J	0.79	0.44	0.60
MEAN NUMBER OF INDIVIDUALS/TAXA	L	70.20	202.21	561.25
NUMBER/ML OF MOST ABUNDANT TAXON	K	282.00	2776.00	5010.00

LAKE NAME: LAKE CHARLESTON CONTINUED
STORET NUMBER: 1708

TAXA	FORM	05 07 73			08 09 73			10 08 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL					2.1	104			
ANKISTRODESMUS	CEL								1.3	120
CHLAMYDOMONAS	CEL							4	6.1	550
CHLOROPHYTAN CELL	CEL						X			
CRYPTOMONAS EROSA	CEL	1	40.2	282						
CYANOPHYTAN FILAMENT	FIL						X			
CYCLOTELLA	CEL		4.0	28						
CYCLOTELLA MENEGHINIANA	CEL						X			
CYCLOTELLA PSEUDOSTELLIGERA	CEL						X			
DACTYLOCOCCOPSIS	CEL					1.1	52			
DACTYLOCOCCOPSIS FASCICULARIS	CEL								2.7	240
ELAKATOTHRIX	COL						X			
EUGLENA	CEL	3	8.0	56				1	55.8	5010
EUGLENA ACUS ?	CEL					1.1	52			
EUGLENA GRACILIS	CEL				2	5.9	285			
EUGLENA OXYURIS ?	CEL						X			
FLAGELLATE #1	CEL		12.0	84		1.1	52			
FLAGELLATES	CEL				1	57.2	2776			
GLENODINIUM EDAX ?	CEL					0.5	26			
GOMPHONEMA	CEL						X			
GYROSIGMA KUTZINGII	CEL			X						
KIRCHNERIELLA	CEL						X			
LEPOCINCLIS	CEL								1.3	120
LYNGBYA	FIL		8.0	56						
MELOSIRA	CEL								1.3	120
MELOSIRA ? GRANULATA	CEL									X
MELOSIRA #4	CEL				4	10.2	493			
NAVICULA VIRUDULA ?	CEL	4	8.0	56						
NITZSCHIA	CEL						X			
NITZSCHIA HOLSATICA ?	CEL						X			
OSCILLATORIA	FIL								1.3	120
PENNATE DIATOM	CEL							5	4.1	370

LAKE NAME: LAKE CHARLESTON CONTINUED
STORET NUMBER: 1708

TAXA	FORM	05 07 73			08 09 73			10 08 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
PHACUS #1	CEL									X
PHACUS #2	CEL								2.8	250
PHACUS LONGICAUCA	CEL								1.3	120
PHACUS PYRUM	CEL							3	5.5	490
PINNULARIA	CEL	5	8.0	56						
PSEUDOUVELLA AMERICANA	CEL									X
SPERMATOZOOPSIS	CEL					1.1	52			
STEPHANODISCUS	CEL				3	18.2	882	2	12.9	1160
SURIRELLA	CEL								3.5	310
SURIRELLA OVATA ?	CEL			X						
SYNEDRA	CEL						X			
SYNEDRA ULNA	CEL	2	12.0	84			X			
TRACHELOMONAS PULCHELLA ?	CEL				5	1.6	79			
TRACHELOMONAS URCEOLATA ?	CEL						X			
TOTAL				702			4853			8980

LAKE NAME: COFFEEN LAKE
STORET NUMBER: 1711

NYGAARD TROPHIC STATE INCICES

DATE	05 07 73	08 10 73	10 18 73
MYXOPHYCEAN	01/0 E	6.00 E	1.00 E
CHLOROPHYCEAN	03/0 E	3.00 E	2.33 E
EUGLENOPHYTE	0/04 ?	0.33 E	0.10 ?
DIATOM	1.00 E	0.50 E	0.67 E
COMPOUND	07/0 E	15.0 E	4.33 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 07 73	08 10 73	10 18 73
GENUS	16	13	11
SPECIES	00	06	05

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		05 07 73	08 10 73	10 18 73
AVERAGE DIVERSITY	H	1.14	1.68	2.97
NUMBER OF TAXA	S	14.00	25.00	20.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	3.81	4.64	4.32
TOTAL DIVERSITY	D	10665.34	7445.76	2215.62
TCTAL NUMBER OF INDIVIDUALS/ML	N	9531.00	4432.00	746.00
EVENESS COMPONENT	J	0.30	0.36	0.69
MEAN NUMBER OF INDIVIDUALS/TAXA	L	680.79	177.28	37.30
NUMBER/ML OF MOST ABUNDANT TAXON	K	7837.00	2825.00	204.00

LAKE NAME: COFFEEN LAKE
STORET NUMBER: 1711

CONTINUED

TAXA	FORM	05 07 73 S	05 07 73 %C	05 07 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
ANABAENA	FIL					0.4	18		3.6	27
ANKISTRODESMUS FALCATUS	CEL							2	15.4	115
CENTRIC DIATOMS	CEL	4	3.0	282						
CHLAMYDOMONAS	CEL		0.7	71						
CHLOROPHYTAN LUNATE CELL	CEL	5	2.6	247						
CLOSTERIUM	CEL								2.4	18
COCCONEIS	CEL			X			X			
COSMARIUM #1	CEL									X
COSMARIUM #2	CEL					0.4	18			X
CRUCIGENIA TETRAPEDIA	COL								1.2	9
CRYPTOMONAS	CEL		0.4	35		0.8	35		1.2	9
CYCLOTELLA MENEGHINIANA	CEL					1.2	53	1	27.3	204
CYCLOTELLA STELLIGERA	CEL			X						
CYMBELLA	CEL						X			
DACTYLOCOCCOPSIS	CEL				4	4.0	177			
EUGLENA	CEL						X			
EUGLENA GRACILIS	CEL								2.4	18
FLAGELLATE #1	CEL	3	6.7	635						
FRAGILARIA CAPUCINA	CEL		0.4	35						
GLENODINIUM EDAX	CEL						X			
LEPOCINCLIS ACUTA	CEL						X			
LYNGBYA LIMNETICA	FIL							5	10.7	80
MELOSIRA #4	CEL						X			
MELOSIRA DISTANS ?	CEL									X
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL					0.8	35			
MERISMOPEDIA TENUISSIMA	COL						X			
NAVICULA	CEL						X			
NITZSCHIA	CEL	1	82.2	7837				4	16.6	124
NITZSCHIA #1	CEL								5.9	44
NITZSCHIA #2	CEL						X			
NITZSCHIA #3	CEL				2	20.3	900			

LAKE NAME: COFFEEN LAKE
STORET NUMBER: 1711

CONTINUED

TAXA	FORM	05 07 73			08 10 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
NITZSCHIA TRYBLIONELLA ?	CEL						X			
CSCILLATORIA	FIL	2	1.9	177	1	63.7	2825	3	11.9	89
OSCILLATORIA LIMNETICA	FIL						X			
PEDIASTRUM CUPLEX	COL						X			
PEDIASTRUM SIMPLEX	COL									X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			
PERIDINIUM INCONSPICUUM	CEL						X			
PINNULARIA	CEL									X
RAPHIDIOPSIS CURVATA	FIL				3	6.8	300			
SCENEDESMUS ABUNDANS	COL									X
SCENEDESMUS DIMORPHUS	COL									X
SCENEDESMUS INTERMEDIUS	COL								1.2	9
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL			X						
SCENEDESMUS QUADRICAUDA	COL				5	1.6	71			
SCENEDESMUS SPP.	COL		0.7	71						
STEPHANODISCUS ASTRAEA	CEL			X						
TETRAEDRCN MINIMUM	CEL									X
TETRASTRUM STAURCGENIAEFCRME	COL		1.5	141						
TRACHELCMONAS PULCHELLA	CEL						X			
TCTAL				9531			4432			746

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LAKE NAME: CRAB ORCHARD LAKE
STCRET NUMBER: 1712

                                         NYGAARD TROPHIC STATE INDICES

                                 DATE    05 08 73   08 08 73   10 19 73

                           MYXOPHYCEAN    07/0 E     4.50 E     4.00 E
                         CHLOROPHYCEAN    06/0 E     5.50 E     4.50 E
                          EUGLENOPHYTE    0.08 ?     0.15 ?     0.29 E
                                DIATOM    0.67 E     1.67 E     0.83 E
                              COMPOUND    18/0 E     14.0 E     13.5 E


                                        PALMER'S ORGANIC POLLUTION INDICES

                                 DATE    05 08 73   08 08 73   10 19 73

                                 GENUS         21         21         23
                               SPECIES         09         09         06


                                     SPECIES DIVERSITY AND ABUNDANCE INDICES

                                 DATE    05 08 73   08 08 73   10 19 73

             AVERAGE DIVERSITY     H         2.70       3.41       2.67
                NUMBER OF TAXA     S        29.00      40.00      39.00
  NUMBER OF SAMPLES COMPOSITED     M         3.00       3.00       3.00
             MAXIMUM DIVERSITY  MAXH         4.86       5.32       5.29
               TOTAL DIVERSITY     D     72422.10  375993.42  185420.82
  TOTAL NUMBER OF INDIVIDUALS/ML   N     26823.00  110262.00   69446.00
             EVENESS COMPONENT     J         0.56       0.64       0.50
  MEAN NUMBER OF INDIVIDUALS/TAXA  L       924.93    2756.55    1780.67
NUMBER/ML OF MOST ABUNDANT TAXON   K     12226.00   30614.00   33481.00
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LAKE NAME: CRAB ORCHARD LAKE   CONTINUED
STORET NUMBER: 1712

TAXA	FORM	05 08 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM GRACILIMUM	CEL			X						
ANABAENA	FIL		0.4	97		1.2	1316		0.5	368
ANKISTRODESMUS FALCATUS	CEL		0.7	194		1.4	1491			X
APHANIZOMENON FLOS-AQUAE	FIL									X
ARTHRODESMUS	CEL					0.1	88			
ASTERIONELLA FORMOSA	CEL			X						
CHRYSOPHYTAN COCCOID CELL	CEL	4	9.2	2474			X			
CHRYSOPHYTAN FLAGELLATE	CEL						X			
CLOSTERIUM	CEL						X			X
COCCOID CELL	CEL				3	9.4	10350	1	48.2	33481
COCCOID COLONIES	COL					4.8	5263			
COSMARIUM	CEL									X
CRYPTOMONAS	CEL		2.5	679						
CRYPTOMONAS ?	CEL					0.3	351			
CRYPTOMONAS EROSA	CEL			X						
CRYPTOMONAS OVATA	CEL			X						
CYCLOTELLA	CEL						X			
CYCLOTELLA MENEGHINIANA	CEL	1	45.6	12226	4	6.6	7281		3.8	2667
DACTYLOCOCCOPSIS	CEL	5	2.9	776	2	19.9	21930			
DACTYLOCOCCOPSIS IRREGULARIS	CEL			X			X	2	12.7	8830
DICTYOSPHAERIUM EHRENBERGIANUM	COL									X
EUGLENA	CEL					0.2	175			
EUGLENA #1	CEL		0.4	97						
EUGLENA #2	CEL									X
EUGLENA #3	CEL									X
EUGLENA GRACILIS ?	CEL						X			
EUGLENA SPP.	CEL								0.7	460
FLAGELLATE	CEL								1.6	1104
FLAGELLATE #1	CEL		2.9	776		0.2	175			X
GLENODINIUM EDAX	CEL					0.2	263			
LYNGBYA LIMNETICA	FIL					3.4	3772			
MELOSIRA #4	CEL	2	14.1	3778						X

LAKE NAME: CRAB ORCHARD LAKE CONTINUED
STORET NUMBER: 1712

		05 08 73			08 08 73			10 19 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA DISTANS	CEL	3	12.8	3445					2.4	1656
MELOSIRA DISTANS ?	CEL					0.2	175			
MELOSIRA GRANULATA	CEL		1.3	340		2.9	3158		1.7	1196
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL					1.0	1140			X
MERISMOPEDIA GLAUCA	COL									X
MERISMOPEDIA TENUISSIMA	COL			X		1.9	2105		2.4	1656
MICROCYSTIS INCERTA	COL		0.4	97		4.1	4561	4	5.8	4047
NAVICULA #1	CEL			X						X
NAVICULA #2	CEL								0.3	184
NAVICULA #3	CEL						X			
NITZSCHIA	CEL									X
NITZSCHIA ?	CEL			X						
NITZSCHIA ACICULARIS	CEL									X
NITZSCHIA HOLSATICA	CEL								1.3	920
NITZSCHIA HOLSATICA ?	CEL			X						
OSCILLATORIA	FIL		0.5	146						
OSCILLATORIA #1	FIL				1	27.8	30614			
OSCILLATORIA LIMNETICA	FIL			X			X	3	10.6	7358
PEDIASTRUM DUPLEX	COL									X
PEDIASTRUM TETRAS V. TETRAODON	COL					0.1	88			
PENNATE DIATOM	CEL		1.1	291						
PENNATE DIATOMS	CEL				5	6.6	7281	5	6.0	4139
RAPHIDIOPSIS CURVATA	FIL					3.8	4211		1.3	920
SCENEDESMUS ACUTUS	COL									X
SCENEDESMUS BERNARDII	COL					0.4	439			
SCENEDESMUS BICAUDATUS	COL		0.4	97			X			X
SCENEDESMUS BIJUGA	COL						X			
SCENEDESMUS DIMORPHUS	COL		0.2	49		0.2	175			X
SCENEDESMUS ECORNIS V. DISCIFORMIS	COL						X			

LAKE NAME: CRAB ORCHARD LAKE CONTINUED
STORET NUMBER: 1712

TAXA	FORM	05 08 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SCENEDESMUS INTERMEDIUS	COL					0.8	877			X
SCENEDESMUS QUADRICAUDA	COL		1.8	485		0.4	439		0.3	184
SCHROEDERIA SETIGERA	CEL						X		0.4	276
SYNEDRA #1	CEL		1.4	388		2.3	2544			
TETRAEDRON MINIMUM	CEL						X			
TETRASTRUM HETERACANTHUM ?	COL		1.4	388						
TRACHELCMONAS	CEL									X
TRACHELCMONAS PULCHELLA	CEL									X
TRACHELOMONAS URCEOLATA ?	CEL						X			
TRACHELCMONAS VCLVCCINA	CEL									X
TOTAL				26823			110262			69446

LAKE NAME: LAKE DECATUR
STORET NUMBER: 1714

NYGAARD TROPHIC STATE INDICES

DATE	05 08 73	08 09 73	10 18 73
MYXOPHYCEAN	02/0 E	5.00 E	4.00 E
CHLOROPHYCEAN	01/0 E	14.0 E	10.0 E
EUGLENOPHYTE	0.33 E	0.21 E	0.29 E
DIATOM	0.67 E	2.00 E	1.00 E
COMPOUND	08/0 E	31.0 E	25.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 08 73	08 09 73	10 18 73
GENUS	13	21	19
SPECIES	00	03	01

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 08 73	08 09 73	10 18 73
AVERAGE DIVERSITY	H	3.28	3.64	3.32
NUMBER OF TAXA	S	19.00	44.00	36.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.25	5.46	5.17
TOTAL DIVERSITY	D	3673.60	18458.44	21513.60
TOTAL NUMBER OF INDIVIDUALS/ML	N	1120.00	5071.00	6480.00
EVENESS COMPONENT	J	0.77	0.67	0.64
MEAN NUMBER OF INDIVIDUALS/TAXA	L	58.95	115.25	180.00
NUMBER/ML OF MOST ABUNDANT TAXON	K	256.00	1166.00	1855.00

LAKE NAME: LAKE DECATUR CONTINUED
STORET NUMBER: 1714

TAXA	FORM	05 08 73			08 09 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL					0.5	27		0.6	38
ANKISTRODESMUS FALCATUS	CEL					2.7	136			
CENTRIC DIATOMS	CEL				1	23.0	1166	2	14.0	909
CHILOMONAS PARAMAECIUM	CEL			X			X			
CHLAMYDOMONAS	CEL		5.7	64						
CHLOROPHYTAN LUNATE CELL	CEL		2.9	32						
CHROOCOCCUS	CEL						X			
CLOSTERIUM	CEL						X		0.6	38
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL									X
COELASTRUM RETICULATUM	COL						X			
COELASTRUM SPHAERICUM	COL					2.1	109			
CRUCIGENIA QUADRATA	COL					0.5	27			
CRUCIGENIA TETRAPEDIA	COL								1.8	114
CRYPTOMONAS	CEL	2	14.3	160			X		1.8	114
CYANOPHYTAN FILAMENT	FIL		2.9	32						
CYCLOTELLA	CEL	4	14.3	160						
CYCLOTELLA MENEGHINIANA	CEL			X			X			X
CYCLOTELLA STELLIGERA	CEL						X			X
DACTYLOCOCCOPSIS	CEL		5.7	64					10.5	681
EUGLENA	CEL	5	2.9	32						
EUGLENA #1	CEL					1.1	54			
EUGLENA #2	CEL					4.3	217			
EUGLENA GRACILIS ?	CEL								1.8	118
FLAGELLATE #1	CEL		2.9	32	2	17.1	868			
FLAGELLATE #9	CEL						X			
FLAGELLATES	CEL								6.4	416
FRAGILARIA	CEL									X
GLENODINIUM EDAX	CEL					1.6	81			
GOLENKINIA	CEL					1.1	54			
KIRCHNERIELLA	CEL					1.1	54			
LAGERHEIMIA	CEL						X			

LAKE NAME: LAKE DECATUR
STORET NUMBER: 1714

CONTINUED

TAXA	FORM	05 08 73			08 09 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA #4	CEL	1	22.9	256	5	5.3	271	4	6.4	416
MELOSIRA DISTANS	CEL					2.1	109	5	5.8	379
MELOSIRA GRANULATA	CEL				4	5.9	298			
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL									X
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL						X			
MERISMOPEDIA	COL					2.7	136	3	11.1	719
MICRACTINIUM	COL						X			
MICROCYSTIS INCERTA	COL					1.6	81		1.2	76
NAVICULA #1	CEL			X						X
NAVICULA #2	CEL		5.7	64						
NITZSCHIA #1	CEL									X
NITZSCHIA #2	CEL					3.2	163			X
NITZSCHIA #3	CEL									X
NITZSCHIA ACICULARIS	CEL						X			X
NITZSCHIA ACTINASTROIDES	CEL				3	15.5	787			
NITZSCHIA PALEA	CEL			X						
NITZSCHIA SPP.	CEL							1	28.6	1855
OSCILLATORIA	FIL					1.1	54		5.8	379
PEDIASTRUM DUPLEX V. ?	COL						X			
PHACUS	CEL									X
PHACUS #1	CEL						X			X
PHACUS LONGICAUDA	CEL						X			
PTEROMONAS	CEL						X			
RAPHIDIOPSIS CURVATA	FIL					3.7	190			
RHOICOSPHENIA	CEL									X
SCENEDESMUS ARMATUS ?	COL						X			
SCENEDESMUS BIJUGA V. ALTERNANS	COL						X			
SCENEDESMUS DIMORPHUS	COL	3	14.3	160					0.6	38

LAKE NAME: LAKE DECATUR
STORET NUMBER: 1714

CONTINUED

TAXA	FORM	05 08 73 S	 %C	 ALGAL UNITS PER ML	08 09 73 S	 %C	 ALGAL UNITS PER ML	10 18 73 S	 %C	 ALGAL UNITS PER ML
SCENEDESMUS INTERMEDIUS	COL								0.6	38
SCENEDESMUS PROTUBERANS	COL						X			
SCENEDESMUS QUADRICAUDA	COL									X
SCENEDESMUS SPP.	COL					1.6	81			
SCHROEDERIA	CEL									X
SCHROEDERIA SETIGERA	CEL					0.5	27		1.2	76
SPERMATOZOOPSIS	CEL					1.6	81			
STEPHANODISCUS	CEL			X			X			X
SURIRELLA	CEL		2.9	32						
SYNEDRA #1	CEL			X						
SYNEDRA #2	CEL		2.9	32						
TABELLARIA FENESTRATA	CEL						X			
TETRAEDRON MINIMUM	CEL									X
TETRASTRUM STAUROGENIAEFORME	COL								0.6	38
TRACHELOMONAS	CEL								0.6	38
TOTAL				1120			5071			5480

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LAKE NAME: LONG LAKE
STCRET NUMBER: 1725


                          NYGAARD TROPHIC STATE INDICES

                         DATE   05 09 73  08 07 73  10 16 73

                  MYXOPHYCEAN    1.00 E    2.00 E    3.00 E
               CHLOROPHYCEAN    1.50 E    1.00 E    4.67 E
                EUGLENOPHYTE    0.40 E    0.11 ?    0.22 E
                      DIATOM    0.75 E    02/0 E    0.67 E
                    COMPOUND    5.00 E    4.00 E    10.0 E


                       PALMER'S ORGANIC POLLUTION INDICES

                         DATE   05 09 73  08 07 73  10 16 73

                        GENUS         01        01        01
                      SPECIES         00        00        00


                     SPECIES DIVERSITY AND ABUNDANCE INDICES

                         DATE   05 09 73  08 07 73  10 16 73

            AVERAGE DIVERSITY    H      1.45      2.31      2.96
              NUMBER OF TAXA     S     17.00     19.00     43.00
 NUMBER OF SAMPLES COMPOSITED    M      2.00      2.00      2.00
        MAXIMUM DIVERSITY     MAXH      4.09      4.25      5.43
              TOTAL DIVERSITY    D   2608.55   6038.34   7846.96
TOTAL NUMBER OF INDIVIDUALS/ML   N   1799.00   2614.00   2651.00
           EVENESS COMPONENT     J      0.35      0.54      0.55
 MEAN NUMBER OF INDIVIDUALS/TAXA L    105.82    137.58     61.65
NUMBER/ML OF MOST ABUNDANT TAXON K   1091.00   1205.00   1355.00
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LAKE NAME: LONG LAKE CONTINUED
STORET NUMBER: 1725

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ANABAENA	FIL					1.3	34			X
APHANIZOMENON FLOS-AQUAE	FIL				2	22.4	585	2	8.1	214
ASTERIONELLA FORMOSA	CEL			X						
CERATIUM HIRUNDINELLA	CEL						X			X
CHROOCOCCUS	COL								2.7	71
CHRYSOPHYTAN FLAGELLATE	CEL									X
CLOSTERIOPSIS	CEL									X
CLOSTERIUM	CEL								1.8	48
CLOSTERIUM #1	CEL					0.7	17			
CLOSTERIUM #2	CEL			X						
CLOSTERIUM MACILENTUM ?	CEL						X			
COCCONEIS ?	CEL								2.0	53
COELASTRUM MICROPORUM	COL								0.7	18
COSMARIUM	CEL								0.9	25
CRYPTOMONAS	CEL	2	24.2	436	4	5.9	155			
CRYPTOMONAS EROSA	CEL							4	4.0	106
CYANOPHYTAN FILAMENT	FIL			X	5	3.9	103	5	4.8	128
CYMBELLA	CEL									X
DICTYOSPHAERIUM	COL								0.6	16
DINOBRYON	CEL						X			X
ELAKATOTHRIX ?	COL									X
EUGLENA	CEL						X		0.7	18
EUGLENA #1	CEL			X						
EUGLENA #2	CEL			X						
EUGLENA OXYURIS V. MINOR	CEL									X
FLAGELLATE #1	CEL								1.3	35
FLAGELLATES	CEL					0.7	17	3	7.0	186
FRAGILARIA #1	CEL			X						
FRAGILARIA CROTONENSIS	CEL			X						
GOMPHOSPHAERIA	COL						X			X
MALLOMONAS	CEL									X

LAKE NAME: LONG LAKE
STORET NUMBER: 1725

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA GRANULATA	CEL			X		1.3	34		1.8	48
MELOSIRA SPP.	CEL	3	13.1	236						
MERISMOPEDIA TENUISSIMA	COL								2.7	71
MICROCYSTIS AERUGINOSA	COL				1	46.1	1205			
MICROCYSTIS INCERTA	COL								1.9	51
NAVICULA	CEL								1.3	35
OOCYSTIS	CEL						X		0.7	18
OSCILLATORIA	FIL			X						X
PEDIASTRUM BORYANUM	COL			X					0.6	16
PEDIASTRUM DUPLEX V. RETICULATUM	COL			X			X		0.6	17
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL	4	1.0	18						X
PHACUS LONGICAUDA	CEL									X
PHORMIDIUM MUCICOLA	COL					1.3	34			X
SCENEDESMUS BICAUDATUS	COL									X
SCENEDESMUS PERFORATUS	COL									X
SCENEDESMUS PROTUBERANS	COL									X
SCENEDESMUS QUADRICAUDA	COL								0.7	18
SCHROEDERIA	CEL									X
SCHROEDERIA SETIGERA	CEL					3.3	86			
SCHROEDERIA SETIGERA ?	CEL								0.9	25
STAURASTRUM	CEL			X			X		0.7	18
STEPHANODISCUS ASTRAEA	CEL	1	60.6	1091	3	13.2	344			
STEPHANODISCUS NIAGARAE	CEL							1	51.1	1355
SYNEDRA	CEL	5	1.0	18						
TRACHELOMONAS PULCHELLA	CEL									X
TRACHELOMONAS SPP.	CEL								2.3	61
TOTAL				1799			2614			2651

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LAKE NAME: LAKE LOU YAEGER
STORET NUMBER: 1726

                         NYGAARD TROPHIC STATE INDICES

                  DATE   05 12 73   08 10 73   10 18 73

           MYXOPHYCEAN     0/0  O    02/0 E     02/0 E
         CHLOROPHYCEAN     0/0  O    02/0 E     03/0 E
          EUGLENOPHYTE    01/0  E    1.00 E     0.60 E
                DIATOM    0.50  E    1.00 E     1.20 E
              COMPOUND    04/0  E    12/0 E     14/0 E


                       PALMER'S ORGANIC POLLUTION INDICES

                  DATE   05 12 73   08 10 73   10 18 73

                 GENUS         00         00         02
               SPECIES         00         00         02


                    SPECIES DIVERSITY AND ABUNDANCE INDICES

                                   DATE   05 12 73   08 10 73   10 18 73

                  AVERAGE DIVERSITY   H       2.33       2.22       2.51
                     NUMBER OF TAXA   S      13.00      17.00      20.00
        NUMBER OF SAMPLES COMPOSITED   M       4.00       4.00       4.00
                 MAXIMUM DIVERSITY MAXH       3.70       4.09       4.32
                    TOTAL DIVERSITY   D     233.00     592.74    2986.90
     TOTAL NUMBER OF INDIVIDUALS/ML   N     100.00     267.00    1190.00
                 EVENESS COMPONENT   J       0.63       0.54       0.58
    MEAN NUMBER OF INDIVIDUALS/TAXA   L       7.69      15.71      59.50
  NUMBER/ML OF MOST ABUNDANT TAXON   K      20.00      94.00     510.00
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LAKE NAME: LAKE LOU YAEGER
STORET NUMBER: 1726

CONTINUED

TAXA	FORM	05 12 73			08 10 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ANABAENA	FIL						X			X
COCCONEIS ?	CEL									X
COELASTRUM MICROPORUM	COL								1.1	13
COELASTRUM SPHAERICUM ?	COL						X			
CRYPTOMONAS	CEL	1	20.0	20						
CYCLOTELLA MENEGHINIANA	CEL				1	17.6	47	2	16.5	196
EUGLENA #1	CEL			X						
EUGLENA #2	CEL						X		1.1	13
EUGLENA #3	CEL									X
FLAGELLATE	CEL	5	20.0	20						
FLAGELLATE #1	CEL			X						
FLAGELLATES	CEL					6.0	16		8.8	105
HANTZSCHIA	CEL						X			
LEPOCINCLIS	CEL									X
MELOSIRA #2	CEL							5	3.3	39
MELOSIRA #4	CEL			X	5	6.0	16		4.4	52
MELOSIRA DISTANS	CEL						X	4	8.8	105
MELOSIRA GRANULATA	CEL			X				1	42.9	510
MERISMOPEDIA TENUISSIMA	COL						X			
NAVICULA #1	CEL			X						X
NAVICULA #2	CEL			X						
NAVICULA #3	CEL									X
NITZSCHIA	CEL	3	20.0	20						
NITZSCHIA TRYBLIONELLA ?	CEL									X
OSCILLATORIA	FIL									X
PENNATE DIATOM	CEL									X
PENNATE DIATOMS	CEL	4	20.0	20	3	29.2	78			
PHACUS PYRUM	CEL						X			
SCENEDESMUS DIMORPHUS	COL									X
SCENEDESMUS PROTUBERANS	COL						X			
SCHROEDERIA SETIGERA	CEL								1.1	13
STEPHANODISCUS	CEL				2	35.2	94	3	12.1	144

LAKE NAME: LAKE LOU YAEGER
STORET NUMBER: 1726

CONTINUED

TAXA	FORM	05 12 73 S	05 12 73 %C	05 12 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL			X						
SYNEDRA #1	CEL	2	20.0	20			X			
SYNEDRA #2	CEL			X			X			
TRACHELOMONAS #1	CEL				4	6.0	16			
TRACHELCMONAS #2	CEL						X			
TOTAL				100			267			1190

LAKE NAME: LAKE MARIE
STORET NUMBER: 1727

NYGAARD TROPHIC STATE INDICES

DATE	05 09 73	08 07 73	10 16 73
MYXOPHYCEAN	04/0 E	2.00 E	2.00 E
CHLOROPHYCEAN	11/0 E	2.00 E	3.67 E
EUGLENOPHYTE	0.13 ?	0/12 ?	0.24 E
DIATOM	0.31 E	1.00 E	1.67 E
COMPOUND	22/0 E	4.67 E	8.67 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 09 73	08 07 73	10 16 73
GENUS	10	07	02
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 09 73	08 07 73	10 16 73
AVERAGE DIVERSITY	H	2.91	2.28	1.66
NUMBER OF TAXA	S	47.00	21.00	37.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.55	4.39	5.21
TOTAL DIVERSITY	D	15952.62	11429.64	9722.62
TOTAL NUMBER OF INDIVIDUALS/ML	N	5482.00	5013.00	5857.00
EVENESS COMPONENT	J	0.52	0.52	0.32
MEAN NUMBER OF INDIVIDUALS/TAXA	L	116.64	238.71	158.30
NUMBER/ML OF MOST ABUNDANT TAXON	K	2233.00	2015.00	4294.00

LAKE NAME: LAKE MARIE CONTINUED
STCRET NUMBER: 1727

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
AMPHIPRCRA ORNATA	CEL			X						
ANABAENA	FIL				4	7.4	371			X
ANKISTRODESMUS	CEL		0.3	14						
APHANIZCMENON FLOS-AQUAE	FIL	2	16.7	918	2	40.2	2015	1	73.3	4294
ASTERICNELLA FORMOSA	CEL	1	40.7	2233						
ASTERICNELLA FORMOSA V. GRACILLIMA	CEL					0.5	27			
BOTRYCCCCCLS BRAUNII	COL						X			
CERATIUM HIRUNDINELLA	CEL			X		0.5	27	5	1.8	106
CHLOROPHYTAN COLCNY	COL									X
CHROOCOCCUS LIMNETICUS	COL						X			
CLOSTERIUM	CEL						X		0.5	30
COCCONEIS	CEL								0.3	15
COCCCNEIS PLACENTULA V. ?	CEL			X						
COELASTRUM RETICULATUM	COL									X
COELOSPHAERIUM	COL								0.8	46
COELOSPHAERIUM NAEGELIANUM	COL					1.1	53			
CCSMARIUM	CEL						X		0.3	15
CRYPTOMONAS	CEL							2	9.9	577
CRYPTOMCNAS #1	CEL			X						
CRYPTOMCNAS EROSA	CEL		7.5	00411						
CYCLOTELLA MENEGHINIANA	CEL		0.5	27					0.8	46
CYMATOPLEURA SOLEA	CEL			X						
CYMBELLA	CEL			X						
CYMBELLA TURGIDA	CEL			X						
DIATCMA TENUE V. ELCNGATUM	CEL		1.3	69						
DICTYOSPHAERIUM PULCHELLUM	COL			X		0.5	27			X
DINOBRYCN	CEL	4	11.3	617						
DINOBRYON BAVARICUM	CEL		0.7	41						
DINOBRYCN DIVERGENS	CEL			X						

LAKE NAME: LAKE MARIE
STORET NUMBER: 1727

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
EUGLENA	CEL			X						X
FLAGELLATE	CEL		2.0	110						
FLAGELLATE #1	CEL		4.0	219						
FLAGELLATE #2	CEL									X
FLAGELLATES	CEL					4.8	239		1.6	91
FRAGILARIA	CEL									X
FRAGILARIA CROTCNENSIS	CEL			X						
FRAGILARIA LEPTOSTAURON	CEL			X						
GOMPHONEMA	CEL						X			
LEPOCINCLIS	CEL								0.5	30
LEPOCINCLIS ACUTA ?	CEL									X
MELOSIRA	CEL			X						
MELOSIRA #2	CEL								1.0	61
MELOSIRA GRANULATA	CEL				3	6.9	345		0.3	15
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL									X
MELOSIRA ITALICA	CEL	3	5.5	301						
MICROCYSTIS AERUGINOSA	COL		0.3	14	5	2.1	106	3	2.6	152
NAVICULA	CEL			X						
NITZSCHIA	CEL		0.3	14						
OOCYSTIS	CEL		1.5	82					2.6	152
OOCYSTIS PARVA	CEL					2.1	106			
OPEPHORA	CEL									X
OSCILLATORIA	FIL		1.0	55						
OSCILLATORIA #1	FIL				1	33.3	1670			
OSCILLATORIA #2	FIL									X
PANDORINA MORUM	COL			X						
PEDIASTRUM BORYANUM	COL			X						
PEDIASTRUM DUPLEX	COL			X						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X			X
PEDIASTRUM SIMPLEX	COL		0.3	14			X			X

LAKE NAME: LAKE MARIE
STORET NUMBER: 1727

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL									X
PEDIASTRUM TETRAS	COL		0.3	14						
PENNATE DIATOM	CEL		0.3	14						
PHACUS HELIKOIDES	CEL									X
PHACUS LONGICAUDA	CEL			X						
PHORMIDIUM MUCICOLA	COL			X						X
PINNULARIA	CEL			X						
PINNULARIA NOBILIS	CEL			X						
QUADRIGULA LACUSTRIS ?	COL			X						
SCENEDESMUS ACUTUS V. ALTERNANS	COL		0.3	14						
SCENEDESMUS BICAUDATUS	COL									X
SCENEDESMUS DIMORPHUS	COL								0.5	30
SCENEDESMUS QUADRICAUDA	COL		0.7	41						X
SPHAEROCYSTIS ?	COL									X
SPHAEROCYSTIS SCHROETERI	CEL						X			
STAURASTRUM	CEL						X			X
STEPHANODISCUS ASTRAEA	CEL		2.2	123				4	3.4	197
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL		2.5	137		0.5	27			
SURIRELLA	CEL			X						
SYNEDRA	CEL			X						
TETRASTRUM STAUROGENIAEFORME	COL			X						X
TOTAL				5482			5013			5857

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LAKE NAME: PISTAKEE LAKE
STORET NUMBER: 1733

                                   NYGAARD TROPHIC STATE INDICES

                          DATE    05 09 73    08 07 73    10 16 73

                   MYXOPHYCEAN    3.00 E      2.00 E      2.25 E
                CHLOROPHYCEAN     6.50 E      6.00 E      2.75 E
                EUGLENOPHYTE      0.26 E      0.17 ?      0.25 E
                        DIATOM    0.50 E      0.50 E      0.57 E
                      COMPOUND   15.0 E      10.3 E       7.25 E


                                PALMER'S ORGANIC POLLUTION INDICES

                          DATE    05 09 73    08 07 73    10 16 73

                         GENUS          20          06          07
                       SPECIES          07          00          00


                              SPECIES DIVERSITY AND ABUNDANCE INDICES

                          DATE    05 09 73    08 07 73    10 16 73

              AVERAGE DIVERSITY     H      4.16        2.75        2.18
                 NUMBER OF TAXA     S     52.00       46.00       46.00
     NUMBER OF SAMPLES COMPOSITED   M      2.00        2.00        2.00
              MAXIMUM DIVERSITY  MAXH      5.70        5.52        5.52
                TOTAL DIVERSITY     D  31054.40    24695.00    18874.44
  TOTAL NUMBER OF INDIVIDUALS/ML    N   7465.00     8980.00     8658.00
              EVENESS COMPONENT     J      0.73        0.50        0.39
   MEAN NUMBER OF INDIVIDUALS/TAXA  L    143.56      195.22      188.22
 NUMBER/ML OF MOST ABUNDANT TAXON   K   1275.00     3769.00     5618.00
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LAKE NAME: PISTAKEE LAKE   CONTINUED
STORET NUMBER: 1733

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
ACTINASTRUM	CEL		0.5	41						
AMPHIPRCRA ORNATA	CEL			X			X			X
ANABAENA	FIL				5	5.2	471			
ANABAENA SPIROICES	FIL							5	1.7	146
ANKISTRCDESMUS	CEL		0.3	21						
ANKISTRODESMUS FALCATUS	CEL			X		0.3	31			
APHANIZCMENON FLOS-AQUAE	FIL		1.1	82	1	42.0	3769	2	11.5	995
ASTERICNELLA FORMOSA	CEL	2	9.9	740						
ATTHEYA	CEL									X
CHLAMYDCMONAS	CEL									X
CHLORELLA ?	CEL		0.3	21						
CHLOROPHYTAN COCCOID CELL	CEL					0.3	31			
CHROOCCCCUS	COL								2.0	176
CHRYSOPHYTAN FLAGELLATE	CEL		2.8	206			X			
CLOSTERIUM	CEL						X		0.3	29
COCCONEIS	CEL			X						
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL					1.0	94			X
COELASTRUM MICROPORUM	COL									X
COELASTRUM RETICLLATUM	CCL									X
COELASTRUM SPP.	COL							4	2.4	204
COSCINODISCUS LACUSTRIS	CEL			X						
COSMARIUM	CEL		0.8	62			X			
CRUCIGENIA QUADRATA	COL		1.1	82						
CRUCIGENIA RECTANGULARIS	COL								0.7	59
CRUCIGENIA TETRAPEDIA	COL					0.7	63			
CRYPTOMCNAS	CEL	5	8.8	658						
CRYPTOMONAS EROSA	CEL			X		1.7	157		1.7	146
CYANOPHYTAN COCCOID CELLED COLONY	COL		0.5	41						
CYCLOTELLA	CEL	1	17.1	1275						
CYCLOTELLA MENEGHINIANA	CEL						X			
CYMATOPLEURA	CEL			X						

LAKE NAME: PISTAKEE LAKE
STORET NUMBER: 1733

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
CYMATOPLEURA OVATA ?	CEL			X						
CYMATOPLEURA SOLEA	CEL									X
CYMBELLA	CEL			X						X
DICTYOSPHAERIUM PULCHELLUM	COL					2.4	220			
DINOBRYON	CEL	4	9.4	699					1.4	117
EPITHEMIA	CEL								0.3	29
EPITHEMIA TURGIDA	CEL			X			X			
EUGLENA	CEL		0.5	41						X
EUGLENA GRACILIS	CEL						X			
EUGLENA OXYURIS V. MINOR	CEL					0.3	31			
FLAGELLATE #1	CEL		1.9	144			X			
FLAGELLATE #9	CEL			X						
FRAGILARIA CROTONENSIS	CEL			X						
GLENODINIUM	CEL									X
GLENODINIUM GYMNODINIUM	CEL					1.4	126			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X			
GOMPHOSPHAERIA	CEL								0.3	29
KIRCHNERIELLA	CEL		0.5	41						
LEPOCINCLIS	CEL		5.5	411						X
LEPOCINCLIS ACUTA	CEL			X						
LYNGBYA	FIL		2.2	164		2.1	188			
MALLOMONAS	CEL		0.3	21						
MELOSIRA	CEL	3	9.1	678						
MELOSIRA DISTANS	CEL		0.8	62						
MELOSIRA GRANULATA	CEL		1.9	144	2	22.0	1979			X
MELOSIRA SPP.	CEL							1	64.9	5618
MELOSIRA VARIANS	CEL									X
MERISMOPEDIA TENUISSIMA	COL						X		1.7	146
MICROCYSTIS AERUGINOSA	COL				4	2.8	251	3	3.7	322
MICROCYSTIS INCERTA	COL		0.8	62		2.8	251		1.7	146

LAKE NAME: PISTAKEE LAKE
STORET NUMBER: 1733

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
NAVICULA	CEL		0.8	62						X
NAVICULA #1	CEL						X			
NAVICULA #2	CEL						X			
NITZSCHIA	CEL			X						
OOCYSTIS	CEL					1.7	157			
OOCYSTIS PARVA	CEL								1.4	117
OOCYSTIS PARVA ?	CEL						X			
OSCILLATORIA	FIL		0.8	62					1.0	88
PEDIASTRUM BORYANUM	COL						X			
PEDIASTRUM DUPLEX	COL			X						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL								0.3	29
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X			
PEDIASTRUM SIMPLEX	COL		0.5	41			X		0.3	29
PENNATE DIATOMS	CEL					0.3	31			
PHACUS	CEL		1.9	144					0.3	29
PHACUS HELIKOIDES	CEL									X
PHACUS ORBICULARIS	CEL			X						
PHACUS PLEURONECTES	CEL						X			
PHACUS TORTUS	CEL						X			
PHORMIDIUM MUCICOLA	COL									X
PINNULARIA	CEL		0.5	41						
PINNULARIA ACUMINATA ?	CEL									X
PTEROMONAS	CEL		0.5	41						
RAPHIDIOPSIS	FIL		3.9	288						
SCENEDESMUS ABUNDANS	COL			X						
SCENEDESMUS BICAUDATUS	COL					0.7	63			
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL					0.3	31			X
SCENEDESMUS DIMORPHUS	COL		1.1	82			X			
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL									X

LAKE NAME: PISTAKEE LAKE CONTINUED
STORET NUMBER: 1733

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SCENEDESMUS OPOLIENSIS	COL						X			
SCENEDESMUS PROTUBERANS	COL						X			
SCENEDESMUS QUADRICAUDA	COL		2.2	164						X
SCHROEDERIA SETIGERA	CEL					0.3	31		1.7	146
SPHAEROCYSTIS SCHROETERI	COL		0.3	21			X			
STAURASTRUM	CEL			X			X		0.3	29
STAURASTRUM LEPTOCLADUM V. CORNUTUM	CEL									X
STAURASTRUM PARADOXUM	CEL									X
STEPHANODISCUS	CEL		8.3	617					0.3	29
STEPHANODISCUS NIAGARAE	CEL				3	11.2	1005			
SURIRELLA	CEL									X
SYNEDRA	CEL						X			
SYNEDRA ULNA	CEL		2.8	206						
TETRAEDRON CAUDATUM	CEL			X						
TETRAEDRON MUTICUM	CEL						X			
TETRASTRUM STAUROGENIAEFORME	COL						X			
TRACHELOMONAS	CEL									X
TOTAL				7465			8980			8658

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LAKE NAME: REND LAKE
STORET NUMBER: 1735

                              NYGAARD TROPHIC STATE INCICES

                    DATE   05 08 73  08 08 73  10 19 73

             MYXCPHYCEAN    1.67 E    8.00 E    5.00 E
           CHLOROPHYCEAN    3.00 E    8.00 E    11.0 E
            EUGLENOPHYTE    0.21 E    0.44 E    0.25 E
                  DIATCM    0.75 E    0.75 E    01/0 E
                COMPOUND    6.67 E    26.0 E    21.0 E


                           PALMER'S ORGANIC PCLLUTICN INDICES

                    DATE   05 08 73  08 08 73  10 19 73

                   GENUS         28        28        14
                 SPECIES         04        00        04


                         SPECIES DIVERSITY AND ABUNDANCE INDICES

                    DATE   05 08 73  08 08 73  10 19 73

           AVERAGE DIVERSITY    H     3.31      3.83      3.43
              NUMBER OF TAXA    S    42.00     38.00     29.00
  NUMBER OF SAMPLES COMPOSITED  M     4.00      4.00      4.00
           MAXIMUM DIVERSITY MAXH     5.39      5.25      4.86
             TOTAL DIVERSITY    D 52059.68  33972.10  29203.02
 TOTAL NUMBER OF INDIVIDUALS/ML N 15728.00   8870.00   8514.00
           EVENESS COMPONENT    J     0.61      0.73      0.71
 MEAN NUMBER OF INDIVIDUALS/TAXA L  374.48    233.42    293.59
NUMBER/ML OF MOST ABUNDANT TAXON K 6826.00   1428.00   2230.00
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LAKE NAME: REND LAKE
STCRET NUMBER: 1735

CONTINUED

TAXA	FORM	05 08 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
APHANIZCMENON FLOS-AQUAE	FIL					0.3	23			
APHANOTHECE	CEL					1.1	94			
CARTERIA	CEL			X	1	16.1	1428		0.9	75
CERATIUM HIRUNDINELLA	CEL								0.4	38
CHILCMCNAS PARAMAECIUM	CEL		2.4	382						
CHLAMYDCMONAS	CEL		1.7	273						X
CHLAMYDOMONAS DINOBRYONII	CEL			X						
CHLAMYDCMONAS GLCBOSA ?	CEL			X						
CHLAMYDCMONAS SNCWII	CEL						X			
CHLAMYDCMONAS SPP.	CEL				2	12.7	1124			
CHLCROGCNIUM	CEL					0.8	70			X
CHROOCOCCUS	COL		1.4	218					0.4	38
CLCSTERIUM	CEL		1.7	273			X		1.6	132
COELASTRUM MICROPORUM	COL					2.6	234		0.3	26
COELOSPHAERIUM	COL					0.3	23			
COSMARIUM	CEL		0.3	55						
CRUCIGENIA	COL					0.8	70			
CRUCIGENIA IRREGULARIS	COL								2.0	170
CRUCIGENIA TETRAPEDIA	COL								1.3	113
CRYPTOMCNAS EROSA	CEL					2.9	258			
CRYPTOMCNAS REFLEXA ?	CEL	3	5.9	928						
CYCLCTELLA	CEL				4	10.6	936			
CYCLOTELLA STELLIGERA	CEL	2	8.7	1365						
DACTYLOCCCCOPSIS	CEL							3	14.6	1247
DICTYOSPHAERIUM	COL		0.3	55						
DINOBRYON	CEL			X						
DINOFLAGELLATE	CEL									X
EUGLENA	CEL		0.3	55					2.7	227
EUGLENA PISCIFORMIS	CEL			X						
EUGLENA SPP.	CEL					2.1	187			
FLAGELLATE	CEL							2	26.2	2230
FLAGELLATE #1	CEL	4	5.9	928	5	8.2	726			

LAKE NAME: REND LAKE
STORET NUMBER: 1735

CONTINUED

TAXA	FORM	05 08 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
FLAGELLATE #9	CEL		1.4	218						
GLENODINIUM	CEL					0.3	23			
GONIUM ?	COL		0.7	109						
GYMNODINIUM	CEL		2.1	328						
GYMNODINIUM ORDINATUM	CEL			X						
KIRCHNERIELLA	CEL		2.8	437		0.3	23		7.8	661
LYNGBYA	FIL		0.7	109						
MALLOMONAS	CEL		0.3	55						
MELOSIRA	CEL			X						
MELOSIRA DISTANS	CEL					5.5	492			
MELOSIRA GRANULATA	CEL	1	43.4	6826			X		2.0	170
MERISMOPEDIA TENUISSIMA	COL					1.8	164	4	5.5	472
MICRACTINIUM	COL		0.7	109						
MICROCYSTIS INCERTA	COL		2.4	382	3	13.7	1217	1	17.5	1493
NAVICULA	CEL		3.1	492						
NAVICULA SPP.	CEL					6.6	585			
NITZSCHIA PILLIFORMIS	CEL			X						
OCHROMONAS	CEL			X						
OSCILLATORIA	FIL		1.0	164		5.5	491		0.2	19
PALMELLOID COLONY	COL					1.3	117			
PANDORINA	COL						X			
PEDIASTRUM DUPLEX V. RETICULATUM	COL								0.4	38
PEDIASTRUM OBTUSUM	COL						X			
PEDIASTRUM TETRAS	COL			X						
PEDIASTRUM TETRAS V. TETRAODON	COL								0.2	19
PHACUS #1	CEL								1.1	95
PHACUS #2	CEL								4.7	397
PHACUS LONGICAUDA	CEL						X		0.3	26
PHACUS SPP.	CEL					1.3	117			
PTEROMONAS	CEL									X

LAKE NAME: REND LAKE
STORET NUMBER: 1735

CONTINUED

		05 08 73			08 08 73			10 19 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
RAPHIDIOPSIS	FIL	5	5.6	874			X			
RAPHIDIOPSIS CURVATA	FIL					1.8	164			
SCENEDESMUS ABUNCANS	COL						X			
SCENEDESMUS ARCUATUS V. PLATYDISCA	COL								0.4	38
SCENEDESMUS DIMORPHUS	COL			X					1.8	151
SCENEDESMUS QUADRICAUDA	COL		2.8	437				5	5.3	450
SCENEDESMUS SPP.	COL					1.3	117			
STAURASTRUM TETRACERUM	CEL			X						
SYNEDRA	CEL					1.3	117			
SYNEDRA ACUS V. RADIANS	CEL			X						
SYNEDRA RUMPENS	CEL			X						
SYNEDRA SPP.	CEL		1.0	164						
SYNEDRA ULNA	CEL						X			
TETRAEDRON GRACILE	CEL									X
TETRAEDRON MINIMUM	CEL			X						
TETRAEDRCN TRIGCKUM	CEL						X			
TETRAEDRON TRIGONUM ?	CEL			X						
TETRASTRUM	COL								2.2	189
TETRASTRUM STAURCGENIAEFORME	COL		0.3	55			X			
TRACHELCMONAS	CEL		2.8	437		0.5	47			
TRACHELCMONAS PULCHELLA ?	CEL						X			
TRACHELCMONAS URCECLATA ?	CEL					0.3	23			
TOTAL				15728			8870			8514

LAKE NAME: LAKE SHELBYVILLE
STORET NUMBER: 1739

NYGAARD TROPHIC STATE INDICES

DATE	05 08 73	08 09 73	10 18 73
MYXOPHYCEAN	01/0 E	5.00 E	3.00 E
CHLOROPHYCEAN	01/0 E	8.00 E	6.50 E
EUGLENOPHYTE	1.00 E	0.23 E	0.26 E
DIATOM	1.00 E	1.00 E	1.20 E
COMPOUND	13/0 E	21.0 E	15.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 08 73	08 09 73	10 18 73
GENUS	08	07	05
SPECIES	01	02	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 08 73	08 09 73	10 18 73
AVERAGE DIVERSITY	H	2.57	3.18	3.55
NUMBER OF TAXA	S	27.00	31.00	42.00
NUMBER OF SAMPLES COMPOSITED	M	6.00	6.00	6.00
MAXIMUM DIVERSITY	MAXH	4.75	4.95	5.39
TOTAL DIVERSITY	D	20973.77	14157.36	5112.00
TOTAL NUMBER OF INDIVIDUALS/ML	N	8161.00	4452.00	1440.00
EVENESS COMPONENT	J	0.54	0.64	0.66
MEAN NUMBER OF INDIVIDUALS/TAXA	L	302.26	143.61	34.29
NUMBER/ML OF MOST ABUNDANT TAXON	K	2476.00	963.00	365.00

LAKE NAME: LAKE SHELBYVILLE CONTINUED
STORET NUMBER: 1739

TAXA	FORM	05 08 73 S	05 08 73 %C	05 08 73 ALGAL UNITS PER ML	08 09 73 S	08 09 73 %C	08 09 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
ACHNANTHES LANCEOLATA	CEL			X						
ACHNANTHES MICROCEPHALA	CEL				1	21.6	963			X
ANABAENA #1	FIL								3.3	47
ANABAENA #2	FIL						X			X
ANKISTRODESMUS	CEL									X
APHANIZOMENON ?	FIL					3.1	140			
APHANIZOMENON FLOS-AQUAE	FIL							3	9.8	141
ASTERIONELLA FORMOSA										
V. GRACILLIMA	CEL		1.2	102						
CENTRIC DIATOM	CEL	5	30.3	2476						
CERATIUM HIRUNDINELLA										
F. BRACHYCERAS	CEL					0.5	28			
CLOSTERIUM #1	CEL									X
CLOSTERIUM #2	CEL								0.8	12
COLONY	COL			X						
CRUCIGENIA APICULATA	COL						X			
CRUCIGENIA TETRAPEDIA	COL								1.7	24
CRYPTOMONAS	CEL				5	7.2	321		7.4	106
CYCLOTELLA MENEGHINIANA	CEL			X		2.2	98			X
CYMBELLA	CEL						X			
CYMBELLA VENTRICOSA	CEL			X						
DACTYLOCOCCOPSIS	CEL		1.5	119					4.9	71
DINOFLAGELLATE	CEL					1.3	56			
DINOFLAGELLATE #1	CEL								0.8	12
DINOFLAGELLATES	CEL									X
EUGLENA	CEL			X			X			
EUGLENA GRACILIS	CEL	3	3.1	256						X
EUGLENA OXYURIS										
V. MINOR	CEL						X			
FLAGELLATES	CEL	2	30.1	2459	2	21.0	935	2	13.1	189
FRANCEIA DROESCHERI	CEL									X
GLENODINIUM	CEL		0.8	68						

LAKE NAME: LAKE SHELBYVILLE CONTINUED
STORET NUMBER: 1739

TAXA	FORM	05 08 73 S	05 08 73 %C	05 08 73 ALGAL UNITS PER ML	08 09 73 S	08 09 73 %C	08 09 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
GYMNODINIUM	CEL			X						
LEPOCINCLIS	CEL						X			X
MALLOMONAS	CEL			X						
MELOSIRA #4	CEL		1.7	137		0.6	28			X
MELOSIRA DISTANS	CEL		8.6	700			X	1	25.3	365
MELOSIRA GRANULATA	CEL	4	2.3	188		0.9	42	4	8.2	118
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL		0.4	34						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL									X
MELOSIRA VARIANS	CEL			X						
MERISMOPEDIA	COL					2.2	98			
MERISMOPEDIA TENUISSIMA	COL						X		3.3	47
MESOSTIGMA VIRIDIS	CEL								1.7	24
MICROCYSTIS INCERTA	COL					0.9	42			
NAVICULA #1	CEL			X						
NAVICULA #2	CEL									X
NITZSCHIA	CEL			X	4	10.3	460			X
NITZSCHIA ?	CEL			X						
OOCYSTIS PUSILLA	CEL						X			
OSCILLATORIA #1	FIL								0.8	12
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			X
PENNATE #1	CEL								0.8	12
PHACUS	CEL									X
PHACUS ACUMINATUS ?	CEL								0.8	12
SCENEDESMUS #1	COL									X
SCENEDESMUS #2	COL									X
SCENEDESMUS BICAUDATUS	COL								3.3	47
SCENEDESMUS DENTICULATUS	COL									X
SCENEDESMUS DIMORPHUS	COL		0.2	17					1.7	24
SCENEDESMUS INTERMEDIUS	COL						X			X

LAKE NAME: LAKE SHELBYVILLE CONTINUED
STORET NUMBER: 1739

TAXA	FORM	05 08 73			08 09 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL						X		1.7	24
SCENEDESMUS OPOLIENSIS	COL									X
SCENEDESMUS PROTUBERANS	COL					0.3	14			
STAURASTRUM	CEL						X			
STEPHANODISCUS	CEL				3	17.2	767	5	9.8	141
STEPHANODISCUS ASTRAEA	CEL			X						
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL	1	17.8	1451						
SURIRELLA ANGUSTATA	CEL			X						
SYNEDRA #1	CEL					6.3	279			
SYNEDRA #2	CEL						X			X
SYNEDRA ACUS	CEL		0.2	17						
SYNEDRA DELICATISSIMA	CEL		1.7	137						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					3.8	167			
TETRASTRUM STAUROGENIAEFORME	COL								0.8	12
TRACHELOMONAS	CEL									X
TREUBARIA	CEL					0.3	14			
TOTAL				8161			4452			1440

LAKE NAME: HIGHLAND LAKE
STCRET NUMBER: 1740

NYGAARD TROPHIC STATE INDICES

DATE	05 07 73	08 10 73	10 17 73
MYXOPHYCEAN	02/0 E	5.00 E	4.00 E
CHLOROPHYCEAN	03/0 E	2.00 E	4.00 E
EUGLENOPHYTE	1.40 E	0.86 E	1.00 E
DIATOM	2.00 E	2.00 E	1.33 E
COMPOUND	14/0 E	17.0 E	24.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 07 73	08 10 73	10 17 73
GENUS	00	02	02
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 07 73	08 10 73	10 17 73
AVERAGE DIVERSITY	H	2.07	2.91	2.51
NUMBER OF TAXA	S	21.00	25.00	36.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.39	4.64	5.17
TOTAL DIVERSITY	D	3519.00	5761.80	7811.12
TOTAL NUMBER OF INDIVIDUALS/ML	N	1700.00	1980.00	3112.00
EVENESS COMPONENT	J	0.47	0.63	0.49
MEAN NUMBER OF INDIVIDUALS/TAXA	L	80.95	79.20	86.44
NUMBER/ML OF MOST ABUNDANT TAXON	K	880.00	469.00	1378.00

LAKE NAME: HIGHLAND LAKE
STCRET NUMBER: 1740

CCNTINUED

TAXA	FORM	05 07 73			08 10 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL									X
ANABAENA	FIL					2.1	41			
ANKISTRODESMUS	CEL						X			
APHANIZOMENON FLOS-AQUAE	FIL									X
CENTRIC DIATOM	CEL							2	44.3	1378
CENTRIC DIATOMS	CEL									X
CERATIUM HIRUNDINELLA	CEL									X
CHLORELLA VULGARIS	CEL			X						
CHLOROPHYTAN CELL	CEL						X			
CLCSTERIUM	CEL						X			X
CRUCIGENIA	COL								0.4	12
CRYPTOMONAS	CEL						X	4	3.3	103
CRYPTOMCNAS OVATA	CEL	1	25.9	440						
CRYPTOMONAS REFLEXA	CEL			X						
CYANOPHYTAN COLONY	COL						X			
CYANOPHYTAN FILAMENT	FIL				2	23.7	469			
CYCLOTELLA STELLIGERA	CEL				5	12.4	245	2	8.8	274
CYMBELLA VENTRICCSA	CEL			X						
DACTYLOCOCCOPSIS	CEL		1.7	29						X
DICTYOSPHAERIUM PULCHELLUM	COL		1.7	29						
EUDORINA	CEL			X						
EUGLENA	CEL								0.4	12
EUGLENA #1	CEL			X						
EUGLENA #2	CEL	3	1.7	29						
EUGLENA ACUS	CEL			X						
EUGLENA ACUS ?	CEL						X			
EUGLENA GRACILIS	CEL									X
EUGLENA GRACILIS ?	CEL									X
EUGLENA CXYURIS	CEL						X			
EUGLENA CXYURIS V. MINOR	CEL									X
FLAGELLATE	CEL									X

LAKE NAME: HIGHLAND LAKE
STORET NUMBER: 1740

CONTINUED

TAXA	FORM	05 07 73 S	05 07 73 %C	05 07 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
FLAGELLATE #1	CEL			X			X		19.8	616
FLAGELLATES	CEL	2	51.8	880	4	19.6	388			
GLENODINIUM	CEL	4	8.6	147						
GLOEOCYSTIS	COL									X
HANTZSCHIA ?	CEL									X
LEPOCINCLIS ?	CEL						X			
MELOSIRA #4	CEL								1.4	44
MELOSIRA DISTANS	CEL					7.2	143	3	12.0	374
MELOSIRA GRANULATA	CEL			X		2.1	41			X
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X			X
MERISMOPEDIA	COL									X
MERISMOPEDIA TENUISSIMA	COL				3	19.6	388			X
NAVICULA	CEL									X
OOCYSTIS	CEL									X
OSCILLATORIA	FIL			X						
OSCILLATORIA CHLORINA	FIL				1	1.0	20			
PANDORINA ?	COL						X			
PENNATE DIATOM	CEL						X		1.0	32
PHACUS	CEL		1.7	29					0.9	28
PHACUS HELIKOIDES	CEL			X			X			
PINNULARIA	CEL									X
SCENEDESMUS	COL		1.7	29						
SCHROEDERIA SETIGERA	CEL					4.1	82		0.5	15
STEPHANODISCUS	CEL		1.7	29						X
SURIRELLA	CEL									X
SYNEDRA	CEL						X			
SYNEDRA ?	CEL								0.4	12
TRACHELOMONAS	CEL					2.1	41			
TRACHELOMONAS #2	CEL								0.5	15
TRACHELOMONAS PULCHELLA ?	CEL					6.2	122	5	4.4	138
TRACHELOMONAS SCABRA V. ?	CEL	5	3.5	59						

LAKE NAME: HIGHLAND LAKE CONTINUED
STORET NUMBER: 1740

		05 07 73			08 10 73			10 17 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
TRACHELOMONAS SCABRA V. OVATA ?	CEL			X						
TRACHELCMONAS VOLVOCINA ?	CEL								1.9	59
TOTAL				1700			1980			3112

LAKE NAME: LAKE SPRINGFIELD
STORET NUMBER: 1742

NYGAARD TROPHIC STATE INDICES

DATE	05 01 73	08 09 73	10 18 73
MYXOPHYCEAN	03/0 E	6.00 E	03/0 E
CHLOROPHYCEAN	10/0 E	7.00 E	10/0 E
EUGLENOPHYTE	0.15 ?	0.46 E	0.23 E
DIATOM	2.67 E	3.50 E	2.00 E
COMPOUND	23/0 E	26.0 E	20/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 01 73	08 09 73	10 18 73
GENUS	01	09	10
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 01 73	08 09 73	10 18 73
AVERAGE DIVERSITY	H	2.69	2.74	3.41
NUMBER OF TAXA	S	29.00	35.00	28.00
NUMBER OF SAMPLES COMPOSITED	M	5.00	5.00	5.00
MAXIMUM DIVERSITY	MAXH	4.86	5.13	4.81
TOTAL DIVERSITY	D	3276.42	10354.46	19252.86
TOTAL NUMBER OF INDIVIDUALS/ML	N	1218.00	3779.00	5646.00
EVENESS COMPONENT	J	0.55	0.53	0.71
MEAN NUMBER OF INDIVIDUALS/TAXA	L	42.00	107.97	201.64
NUMBER/ML OF MOST ABUNDANT TAXON	K	325.00	1553.00	1540.00

LAKE NAME: LAKE SPRINGFIELD
STORET NUMBER: 1742

CONTINUED

TAXA	FORM	05 01 73 S	05 01 73 %C	05 01 73 ALGAL UNITS PER ML	08 09 73 S	08 09 73 %C	08 09 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
ACTINASTRUM	CEL			X					0.5	30
ANABAENA	FIL						X			
ANKISTRODESMUS	CEL					0.6	23			
APHANIZOMENON ?	FIL						X			
CARTERIA	CEL									X
CENTRIC DIATOM	CEL		4.4	54						
CENTRIC DIATOMS	CEL				2	21.5	812			
CHLOROPHYTAN LUNATE CELL	CEL						X		2.1	121
CLOSTERIUM	CEL					0.6	23			
COELASTRUM MICROPORUM	COL					0.6	23			
CRUCIGENIA TETRAPEDIA	COL					0.6	23			X
CRYPTOMONAS	CEL	2	26.7	325		2.5	93		2.1	121
CYCLOTELLA MENEGHINIANA	CEL			X			X			
CYCLOTELLA STELLIGERA	CEL			X						
DACTYLOCOCCOPSIS	CEL		4.4	54						
EUGLENA	CEL			X					1.1	60
EUGLENA #1	CEL						X			
EUGLENA #2	CEL					1.9	70			
FLAGELLATE #1	CEL	4	11.1	135		2.5	93		2.1	121
GLENODINIUM	CEL			X						
GONIUM	COL									X
GYROSIGMA	CEL			X						
KIRCHNERIELLA	CEL			X			X	5	8.0	453
MELOSIRA #4	CEL	1	26.7	325	5	3.7	139	1	27.3	1540
MELOSIRA DISTANS	CEL	3	15.6	190	3	12.9	487		6.4	362
MELOSIRA GRANULATA	CEL			X	1	41.1	1553	3	6.4	362
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X			
MELOSIRA ITALICA	CEL			X						
MERISMOPEDIA	COL			X		1.9	70		5.3	302
MESOSTIGMA VIRIDIS	CEL					1.2	46		4.3	242
MICRACTINIUM	COL			X						

LAKE NAME: LAKE SPRINGFIELD
STORET NUMBER: 1742

CONTINUED

		05 01 73			08 09 73			10 18 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MICROCYSTIS INCERTA	COL					1.2	46		5.3	302
NITZSCHIA ACICULARIS	CEL						X			
NITZSCHIA ACTINASTROIDES ?	CEL						X			X
NITZSCHIA SPP.	CEL				4	5.5	209	2	16.0	906
OSCILLATORIA	FIL		2.2	27			X			
PEDIASTRUM DUPLEX V. ?	COL						X			
PEDIASTRUM TETRAS	CEL									X
PENNATE DIATOM #1	CEL	5	6.7	81						
PHACUS #1	CEL					0.6	23			X
PHACUS LONGICAUDA	CEL						X			
PHACUS PYRUM	CEL									X
RAPHIDIOPSIS	FIL					0.6	23		2.7	151
SCENEDESMUS ABUNDANS	COL			X						X
SCENEDESMUS ACUMINATUS	COL			X						
SCENEDESMUS BICAUDATUS ?	COL					0.6	23			
SCENEDESMUS BIJUGA	COL			X						
SCENEDESMUS DIMORPHUS	COL			X					0.5	30
SCENEDESMUS INTERMEDIUS	COL			X						
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL									X
SCENEDESMUS QUADRICAUDA	COL			X						
SCHROEDERIA SETIGERA	CEL						X			X
SPERMATOZOOPSIS	CEL						X			
STEPHANODISCUS	CEL			X			X	4	8.6	483
SYNEDRA	CEL		2.2	27						
TETRAEDRON	CEL								0.5	30
TETRASTRUM STAUROGENIAEFORME	COL			X					0.5	30
TRACHELOMONAS #1	CEL						X			
TRACHELOMONAS #2	CEL						X			
TRACHELOMONAS URCEOLATA	CEL			X						
TOTAL				1218			3779			5646

LAKE NAME: VERMILION LAKE
STORET NUMBER: 1748

NYGAARD TROPHIC STATE INDICES

DATE	05 11 73	08 08 73	10 17 73
MYXOPHYCEAN	03/0 E	05/0 E	04/0 E
CHLOROPHYCEAN	05/0 E	04/0 E	05/0 E
EUGLENOPHYTE	0.37 E	0.44 E	0.33 E
DIATOM	0.38 E	0.80 E	1.00 E
COMPOUND	16/0 E	17/0 E	14/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 11 73	08 08 73	10 17 73
GENUS	12	10	21
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 11 73	08 08 73	10 17 73
AVERAGE DIVERSITY	H	2.90	3.00	2.93
NUMBER OF TAXA	S	36.00	27.00	22.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.17	4.75	4.46
TOTAL DIVERSITY	D	3888.90	7242.00	54562.46
TOTAL NUMBER OF INDIVIDUALS/ML	N	1341.00	2414.00	18622.00
EVENESS COMPONENT	J	0.56	0.63	0.66
MEAN NUMBER OF INDIVIDUALS/TAXA	L	37.25	89.41	846.45
NUMBER/ML OF MOST ABUNDANT TAXON	K	534.00	776.00	8643.00

LAKE NAME: VERMILION LAKE CONTINUED
STORET NUMBER: 1748

TAXA	FORM	05 11 73 S	05 11 73 %C	05 11 73 ALGAL UNITS PER ML	08 08 73 S	08 08 73 %C	08 08 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
ACTINASTRUM	CEL			X						
ANABAENA	FIL			X						
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL			X						
APHANIZOMENON FLOS-AQUAE	FIL						X			
ASTERIONELLA FORMOSA	CEL			X						
CARTERIA	CEL									X
CHLAMYDOMONAS	CEL			X				4	6.8	1257
CHLOROGONIUM	CEL								1.3	236
CHROMULINA ? GLOBOSA	CEL									X
CHRYSOPHYTAN CELL	CEL									X
CHRYSOPHYTAN FLAGELLATE	CEL						X			
CRUCIGENIA TETRAPEDIA	COL								5.5	1021
CRYPTOMONAS	CEL	5	8.2	110				3	5.9	1100
CRYPTOMONAS EROSA	CEL				4	8.9	216			
CYANOPHYTAN FILAMENT	FIL				3	10.7	259			
CYCLOTELLA	CEL				1	32.1	776			
CYCLOTELLA MENEGHINIANA	CEL			X						
CYCLOTELLA SPP.	CEL		1.3	18						
CYCLOTELLA STELLIGERA	CEL			X						
DACTYLOCOCCOPSIS	CEL					3.6	86		3.4	629
DINOBRYON SERTULARIA	CEL			X						
EUGLENA	CEL		4.1	55			X	2	8.0	1493
FLAGELLATE #1	CEL	3	9.6	129		8.9	216			
GOMPHONEMA	CEL	4	4.1	55						
GYMNODINIUM	CEL			X			X			
GYROSIGMA	CEL			X						
KIRCHNERIELLA	CEL								4.2	786
LYNGBYA	FIL		1.3	18						
MALLOMONAS ACAROIDES	CEL					1.8	43			
MELOSIRA	CEL								1.3	236
MELOSIRA #4	CEL	1	39.8	534						

LAKE NAME: VERMILION LAKE
STORET NUMBER: 1748

CONTINUED

TAXA	FORM	05 11 73			08 08 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA DISTANS	CEL						X			
MELOSIRA GRANULATA	CEL			X			X			
MERISMOPEDIA	COL								3.8	707
MERISMOPEDIA SPP.	COL				2	16.1	388			
MERISMOPEDIA TENUISSIMA	COL						X			X
NAVICULA	CEL		1.3	18		7.1	172			
NITZSCHIA	CEL						X			
NITZSCHIA #1	CEL		2.8	37						
NITZSCHIA #2	CEL			X						
NITZSCHIA ACICULARIS	CEL		1.3	18						
OSCILLATORIA	FIL			X					1.3	236
PANDORINA MORUM	COL			X						
PENNATE DIATOM	CEL								1.3	236
PHACUS	CEL			X					2.5	471
PHACUS ACUMINATUS	CEL					5.3	129			
PHACUS LONGICAUDA	CEL				5	1.8	43			
RHOICOSPHENIA CURVATA	CEL			X						
SCENEDESMUS	COL								0.4	78
SCENEDESMUS ACUMINATUS	COL			X						
SCENEDESMUS ACUTUS	COL			X						
SCENEDESMUS BICAUDATUS	COL					1.8	43			
SCENEDESMUS DIMORPHUS	COL					1.8	43	5	4.2	786
SCENEDESMUS PROTUBERANS	COL						X			
SCENEDESMUS QUADRICAUDA	COL			X			X			
STEPHANODISCUS	CEL		2.9	37			X	1	46.4	8643
SURIRELLA	CEL		1.3	18			X		3.8	707
SYNEDRA	CEL						X			
SYNEDRA #1	CEL		2.8	37						
SYNEDRA #2	CEL			X						
SYNEDRA #3	CEL	2	17.8	239						
SYNEDRA ULNA	CEL						X			
SYNEDRA ULNA ?	CEL			X						

LAKE NAME: VERMILICN LAKE
STORET NUMBER: 1748

CONTINUED

		05 11 73			08 08 73			10 17 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
TETRASTRUM STAURCGENIAEFORME	COL									X
TRACHELOMONAS	CEL									X
TRACHELCMONAS URCEOLATA	CEL		1.3	18			X			
TOTAL				1341			2414			18622

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LAKE NAME: WCNDER LAKE
STORET NUMBER: 1750


                                  NYGAARD TROPHIC STATE INDICES

                           DATE   05 09 73   08 07 73   10 16 73

                    MYXOPHYCEAN    5.00 E     1.33 E     1.00 E
                  CHLOROPHYCEAN    9.00 E     4.67 E     16.0 E
                  EUGLENOPHYTE     0.14 ?     0.22 E     0.29 E
                         DIATOM    0.21 ?     1.00 E     0.43 E
                       COMPOUND    19.0 E     8.00 E     25.0 E


                               PALMER'S ORGANIC POLLUTICN INDICES

                           DATE   05 09 73   08 07 73   10 16 73

                          GENUS         15         13         06
                        SPECIES         07         04         04


                              SPECIES DIVERSITY AND ABUNDANCE INDICES

                            DATE   05 09 73   08 07 73   10 16 73

               AVERAGE DIVERSITY     H       3.70       2.83       2.00
                  NUMBER OF TAXA     S      39.00      34.00      36.00
     NUMBER OF SAMPLES CCMPOSITED    M       2.00       2.00       2.00
               MAXIMUM DIVERSITY  MAXH       5.29       5.09       5.17
                 TOTAL DIVERSITY     D   15947.00   17851.64   15094.00
    TOTAL NUMBER OF INDIVIDUALS/ML   N    4310.00    6308.00    7547.00
              EVENESS COMPONENT      J       0.70       0.56       0.39
    MEAN NUMBER CF INDIVIDUALS/TAXA  L     110.51     185.53     209.64
  NUMBER/ML OF MOST ABUNDANT TAXON   K     979.00    3155.00    4791.00
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LAKE NAME: WONDER LAKE
STORET NUMBER: 1750

CONTINUED

		05 09 73			08 07 73			10 16 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL								1.1	85
ACTINASTRUM HANTZSCHII ? V. FLUVIATILE	CEL									X
AMPHIPRORA	CEL		0.3	11						
AMPHIPRORA ORNATA	CEL									X
ANKISTRODESMUS	CEL		0.3	11						
APHANIZOMENON ?	FIL								0.6	42
ASTERIONELLA FORMOSA	CEL		1.5	63						
CHROOCOCCUS	COL		1.5	63		1.3	79			
CHROOMONAS	CEL								0.6	42
CHRYSOPHYTAN FLAGELLATE	CEL		5.1	221						
CLOSTERIUM	CEL		0.5	21			X	5	1.7	127
COELASTRUM	COL						X			
COELASTRUM CAMBRICUM	COL									X
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL									X
COELASTRUM RETICULATUM	COL									X
COSMARIUM	CEL						X			
CRUCIGENIA TETRAPEDIA	COL						X			
CRYPTOMONAS	CEL	3	12.0	516						X
CRYPTOMONAS EROSA	CEL			X		1.9	118	2	14.0	1060
CYCLOTELLA	CEL		3.4	147						
CYMBELLA	CEL		0.7	32			X			X
DICTYOSPHAERIUM	COL		0.3	11						
DINOBRYON	CEL	4	6.4	274						
ELAKATOTHRIX	COL									X
EUGLENA	CEL		0.7	32						
EUGLENA ACUS ?	CEL						X			
EUGLENA SPP.	CEL					3.8	237			X
FLAGELLATE #1	CEL							3	5.6	424
FRAGILARIA	CEL		0.3	11						
FRAGILARIA CAPUCINA ?	CEL			X						

LAKE NAME: WONDER LAKE
STORET NUMBER: 1750

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
GLENODINIUM GYMNODINIUM	CEL				5	3.8	237			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X			
GOMPHONEMA	CEL		0.3	11						
LYNGBYA	FIL		5.1	221						
MALLOMONAS	CEL		0.5	21						
MELOSIRA GRANULATA	CEL	1	20.7	894	1	50.0	3155		4.5	339
MELOSIRA ISLANDICA	CEL									X
MERISMOPEDIA TENUISSIMA	COL						X			
MICROCYSTIS ?	COL		0.3	11						
MICROCYSTIS INCERTA	COL				4	4.4	276			
NAVICULA	CEL		0.5	21					0.6	42
NAVICULA CRYPTOCEPHALA	CEL		1.0	42						
NAVICULA RHYNCHOCEPHALA	CEL		1.5	63						
NITZSCHIA	CEL		1.2	53						X
OCHROMONAS ?	CEL									X
OOCYSTIS	CEL					1.9	118		1.1	85
OOCYSTIS BORGEI ?	CEL									X
OOCYSTIS SUBMARINA	CEL						X			
OSCILLATORIA	FIL		0.5	21						
PALMELLOID COLONY #1	COL					0.6	39			
PALMELLOID COLONY #2	COL					1.9	118			
PEDIASTRUM BORYANUM	COL					1.9	118			
PEDIASTRUM DUPLEX	COL		1.5	63		0.6	39		0.6	42
PEDIASTRUM DUPLEX V. GRACILIMUM	COL						X			
PEDIASTRUM SIMPLEX	COL		0.7	32		0.6	39			X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			
PHACUS	CEL					1.9	118		0.6	42
PHACUS LONGICAUDA	CEL					0.6	39			
PHACUS SPP.	CEL									X

LAKE NAME: WONDER LAKE
STORET NUMBER: 1750

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
PINNULARIA	CEL		0.3	11						
RAPHIDIOPSIS	FIL			X		1.3	79			
RHOICOSPHENIA CURVATA	CEL			X						
SCENEDESMUS ABUNDANS	COL		0.5	21						
SCENEDESMUS ACUMINATUS	COL		0.3	11						
SCENEDESMUS BICAUDATUS	COL						X		0.6	42
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL						X			X
SCENEDESMUS DIMORPHUS	COL									X
SCENEDESMUS OPOLIENSIS	COL					1.9	118			
SCENEDESMUS PROTUBERANS	COL			X						
SCENEDESMUS QUADRICAUDA	COL	5	5.9	253		1.3	79		1.1	85
SCHROEDERIA	CEL				3	3.8	237	4	4.0	299
SCHROEDERIA SETIGERA	CEL		1.0	42						
STAURASTRUM	CEL					0.6	39			
STEPHANODISCUS	CEL	2	22.7	979	2	15.0	947			
STEPHANODISCUS NIAGARAE	CEL							1	63.5	4791
SURIRELLA	CEL					1.3	79			X
SURIRELLA OVATA	CEL		1.2	53						
SYNEDRA	CEL									X
SYNEDRA ULNA	CEL		1.2	53						X
TRACHELOMONAS	CEL		0.5	21						
TROCHISCIA RETICULARIS ?	CEL									X
TOTAL				4310			6308			7547

```
LAKE NAME: LAKE STORY
STORET NUMBER: 1751


                                      NYGAARD TRCPHIC STATE INCICES

                            DATE   05 12 73   08 09 73   10 17 73

                      MYXOPHYCEAN   1.00 E     4.00 E     3.00 E
                    CHLOROPHYCEAN   2.00 E     5.00 E     2.50 E
                    EUGLENOPHYTE    0/03 ?     0/09 ?     0.18 ?
                           DIATOM   0.75 E     0/01 ?     4.00 E
                         COMPOUND   9.00 E     9.00 E     8.50 E


                                   PALMER'S ORGANIC PCLLUTICN INDICES

                            DATE   05 12 73   08 09 73   10 17 73

                            GENUS       03         08         04
                          SPECIES       00         00         00


                                  SPECIES DIVERSITY AND ABUNDANCE INCICES

                             DATE   05 12 73   08 09 73   10 17 73

                AVERAGE DIVERSITY    H      2.51       2.95       2.59
                   NUMBER OF TAXA    S     24.00      14.00      27.00
      NUMBER OF SAMPLES COMPOSITED   M      2.00       2.00       2.00
             MAXIMUM DIVERSITY MAXH         4.58       3.81       4.75
                  TOTAL DIVERSITY    D  10293.51    3259.75   13234.90
    TOTAL NUMBER OF INDIVIDUALS/ML   N   4101.00    1105.00    5110.00
               EVENESS COMPONENT     J      0.55       0.77       0.55
   MEAN NUMBER CF INDIVIDUALS/TAXA   L    170.88      78.93     189.26
  NUMBER/ML OF MOST ABUNDANT TAXON   K   1491.00     360.00    2524.00
```

LAKE NAME: LAKE STORY
STORET NUMBER: 1751

CONTINUED

TAXA	FORM	05 12 73 S	05 12 73 %C	05 12 73 ALGAL UNITS PER ML	08 09 73 S	08 09 73 %C	08 09 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
ANABAENA	FIL	3	14.0	576			X	3	8.4	431
ANKISTRODESMUS	CEL								1.2	62
APHANIZOMENON FLOS-AQUAE	FIL							1	49.4	2524
ASTERIONELLA FORMOSA	CEL	1	36.4	1491						
CERATIUM HIRUNDINELLA F. GRACILIS	CEL									X
CHLAMYDOMONAS	CEL									X
CHLOROPHYTAN CELL	CEL									X
CHLOROPHYTAN COCCOID CELL	CEL									X
CLOSTERIUM	CEL			X						
COCCOID CELL	CEL				1	32.6	360			
COCCONEIS PLACENTULA V. ?	CEL			X						
COELASTRUM	COL				2	11.7	129			
COELASTRUM MICROPORUM	COL									X
COELASTRUM RETICULATUM	COL									X
COELASTRUM SPP.	COL							2	13.2	677
COELOSPHAERIUM	COL								1.8	92
COSMARIUM #1	CEL					4.6	51			X
CRUCIGENIA	COL				5	7.0	77			
CRYPTOMONAS	CEL		1.7	68						
CRYPTOMONAS EROSA	CEL							4	6.6	339
CYCLOTELLA MENEGHINIANA	CEL			X						X
CYCLOTELLA STELLIGERA	CEL			X						
CYMATOPLEURA	CEL			X						
DICTYOSPHAERIUM PULCHELLUM	COL			X						
DINOBRYON DIVERGENS	CEL			X						
EUDORINA ELEGANS	CEL			X						
EUGLENA	CEL									X
FLAGELLATE	CEL		0.8	34						
FLAGELLATE #1	CEL		1.7	68					2.4	123
FLAGELLATE #2	CEL			X						

LAKE NAME: LAKE STORY
STORET NUMBER: 1751

CONTINUED

TAXA	FORM	05 12 73			08 09 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
FRAGILARIA	CEL			X						
GLENODINIUM EDAX	CEL					2.4	26			
LAGERHEIMIA SUBSALSA	CEL					2.4	26			
MALLOMONAS ACAROIDES	CEL					4.6	51			
MELOSIRA GRANULATA	CEL	5	7.4	305				5	4.8	246
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL	4	12.4	508						
MICRACTINIUM PUSILLUM	COL			X						
MICROCYSTIS AERUGINOSA	COL								4.8	246
MICROCYSTIS INCERTA	COL					4.6	51		3.6	185
NAVICULA	CEL			X						
OOCYSTIS	CEL				4	7.0	77		0.6	31
OSCILLATORIA #1	FIL				3	18.6	206			
OSCILLATORIA #2	FIL						X			X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL									X
PENNATE DIATOM	CEL								0.6	31
RHOICOSPHENIA CURVATA	CEL			X						
STAURASTRUM	CEL									X
STEPHANODISCUS ASTRAEA	CEL	2	22.3	915						
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL		1.7	68						
STEPHANODISCUS NIAGARAE	CEL								1.8	92
STEPHANODISCUS NIAGARAE ?	CEL								0.6	31
SYNEDRA #1	CEL					4.6	51			
SYNEDRA DELICATISSIMA	CEL		1.7	68						
SYNEDRA ULNA	CEL			X						
TETRAEDRON MINIMUM	CEL						X			
TRACHELOMONAS PULCHELLA	CEL									X
TOTAL				4101			1105			5110

```
LAKE NAME: DEPUE LAKE
STORET NUMBER: 1752

                              NYGAARD TROPHIC STATE INDICES

                        DATE   08 07 73   10 16 73

                 MYXOPHYCEAN     6.00 E     05/0 E
               CHLOROPHYCEAN    12.0 E      14/0 E
                EUGLENCPHYTE     0.44 E     0.42 E
                      DIATOM     0.62 E     0.83 E
                    COMPOUND    31.0 E      32/0 E


                          PALMER'S CRGANIC POLLUTICN INDICES

                         DATE   08 07 73  10 16 73

                        GENUS         23        18
                      SPECIES         04        04


                           SPECIES DIVERSITY AND ABUNDANCE INDICES

                              DATE   08 07 73   10 16 73

              AVERAGE DIVERSITY    H      3.73       3.56
                NUMBER OF TAXA     S     46.00      46.00
    NUMBER OF SAMPLES COMPOSITED   M      1.00       1.00
             MAXIMUM DIVERSITY  MAXH      5.52       5.52
                TOTAL DIVERSITY    D  45796.94   30947.08
 TOTAL NUMBER OF INDIVIDUALS/ML    N  12278.00    8693.00
             EVENESS COMPONENT     J      0.68       0.64
  MEAN NUMBER OF INDIVIDUALS/TAXA  L    266.91     188.98
NUMBER/ML OF MOST ABUNDANT TAXON   K   3469.00    3065.00
```

LAKE NAME: CEPUE LAKE
STORET NUMBER: 1752

CONTINUED

		08 07 73			10 16 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL	5	9.4	1157	5	5.8	504
ACTINASTRUM HANTZSCHII	CEL						X
CARTERIA	CEL		0.6	68			
CHLAMYDOMONAS	CEL			X			
CHLAMYDOMONAS ?	CEL					0.5	42
CHROOCOCCUS	COL		2.5	306		1.0	84
CHRYSOPHYTAN FLAGELLATE	CEL			X			
CLOSTERIOPSIS	CEL					1.0	84
CLOSTERIUM CERATIUM	CEL		3.0	374			
COCCONEIS	CEL		0.3	34			
COELASTRUM MICROPORUM	COL		0.8	102		0.5	42
CRUCIGENIA TETRAPEDIA	COL		0.3	34		0.5	42
CRYPTOMONAS EROSA	CEL		2.2	272	3	8.9	777
CYCLOTELLA	CEL	4	13.6	1667		3.6	315
CYCLOTELLA MENEGHINIANA	CEL			X			
CYCLOTELLA STELLIGERA	CEL						X
CYMBELLA	CEL						X
DACTYLOCOCCOPSIS	CEL		3.3	408			
DICTYOSPHAERIUM	COL					0.2	21
DINOBRYON	CEL		0.3	34		1.0	84
EUGLENA #1	CEL			X			
EUGLENA GRACILIS	CEL						X
EUGLENA SPP.	CEL	1	28.3	3469	1	35.3	3065
EUGLENA TRIPTERIS	CEL						X
FLAGELLATE	CEL		2.2	272			
FRAGILARIA	CEL					1.0	84
GLOEOCYSTIS	COL					0.2	21
GLOEOCYSTIS ?	COL						X
KIRCHNERIELLA	CEL		0.8	102		0.5	42
LEPOCINCLIS	CEL		1.4	170			
LEPOCINCLIS ACUTA	CEL					1.9	168
LEPOCINCLIS OVUM ?	CEL			X			

LAKE NAME: DEPUE LAKE
STORET NUMBER: 1752

CONTINUED

TAXA	FORM	08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
LYNGBYA	FIL					4.6	399
MELOSIRA GRANULATA	CEL		0.8	102		1.9	168
MELOSIRA ITALICA	CEL			X			X
MERISMOPEDIA	COL		0.3	34			
MERISMOPEDIA TENUISSIMA	COL			X		1.0	84
NAVICULA	CEL			X			
NAVICULA SCUTELLOIDES	CEL					0.5	42
NAVICULA SPP.	CEL				4	8.0	693
NITZSCHIA	CEL			X			X
NITZSCHIA PALEA	CEL			X			
NITZSCHIA SIGMA	CEL			X			
OOCYSTIS	CEL		1.1	136			
OSCILLATORIA	FIL		1.7	204		0.2	21
PEDIASTRUM DUPLEX	COL		0.3	34			
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X
PEDIASTRUM SIMPLEX	COL			X			
PENNATE DIATOM	CEL		2.5	00306			
PHACUS	CEL	3	4.4	544			
PHACUS #1	CEL						X
PHACUS #2	CEL						X
PHACUS ACUMINATUS	CEL						X
PHACUS LONGICAUDA	CEL		0.8	102			
PHACUS PLEURONECTES	CEL						X
PHACUS PLEURONECTES ?	CEL			X			
PHACUS SPP.	CEL				2	11.6	1008
PTEROMONAS	CEL						X
RAPHIDIOPSIS	FIL		1.1	136			
RAPHIDIOPSIS CURVATA	FIL					2.2	189
SCENEDESMUS BICAUDATUS	COL		0.6	68		0.5	42
SCENEDESMUS DIMORPHUS	COL					0.7	63
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL			X			

LAKE NAME: CEPUE LAKE CONTINUED
STCRET NUMBER: 1752

TAXA	FCRM	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
SCENEDESMUS PROTUBERANS	COL			X		0.7	63
SCENEDESMUS QUADRICAUDA	COL		0.8	102		1.9	168
SCHROEDERIA	CEL		1.9	238		1.9	168
STEPHANODISCUS	CEL	2	11.6	1429		0.7	63
SYNEDRA	CEL		1.9	238			
SYNEDRA ULNA	CEL					0.2	21
TABELLARIA FENESTRATA	CEL		0.6	68			
TETRAEDRON MINIMUM	CEL					0.5	42
TRACHELCMONAS PULCHELLA	CEL		0.6	68			
TRACHELCMONAS URCEOLATA	CEL					1.0	84
TOTAL				12278			8693

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LAKE NAME: LAKE SANGCHRIS
STORET NUMBER: 1753

                              NYGAARD TROPHIC STATE INDICES

                    DATE    05 07 73   08 10 73   10 18 73

            MYXOPHYCEAN     1.00 E     6.00 E     3.50 E
          CHLOROPHYCEAN     2.00 E     5.00 E     5.00 E
           EUGLENOPHYTE     0.67 E     0.45 E     0.12 ?
                 DIATOM     0.71 E     0.70 E     0.80 E
               COMPOUND    10.0 E     23.0 E     13.5 E


                            PALMER'S ORGANIC POLLUTION INDICES

                    DATE    05 07 73   08 10 73   10 18 73

                  GENUS        03         18         11
                SPECIES        00         02         04


                        SPECIES DIVERSITY AND ABUNDANCE INDICES

                                      DATE    05 07 73   08 10 73   10 18 73

                   AVERAGE DIVERSITY     H        1.68       1.27       3.25
                      NUMBER OF TAXA     S       23.00      42.00      42.00
         NUMBER OF SAMPLES COMPOSITED    M        4.00       4.00       4.00
                   MAXIMUM DIVERSITY  MAXH        4.52       5.39       5.39
                     TOTAL DIVERSITY     D     5826.24   98041.46   32396.00
       TOTAL NUMBER OF INDIVIDUALS/ML    N     3468.00   77198.00    9968.00
                   EVENESS COMPONENT     J        0.37       0.24       0.60
      MEAN NUMBER OF INDIVIDUALS/TAXA    L      150.78    1838.05     237.33
   NUMBER/ML OF MOST ABUNDANT TAXON      K     2473.00   52083.00    3589.00
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LAKE NAME: LAKE SANGCHRIS
STORET NUMBER: 1753

CONTINUED

TAXA	FORM	05 07 73 S	05 07 73 %C	05 07 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 18 73 S	10 18 73 %C	10 18 73 ALGAL UNITS PER ML
ANABAENA	FIL						X			
ANABAENOPSIS	FIL									X
ANKISTRODESMUS FALCATUS	CEL									X
APHANIZOMENON FLOS-AQUAE	FIL						X			
ASTERIONELLA FORMOSA	CEL			X						
CENTRIC DIATOMS	CEL							4	4.1	410
CHLOROPHYTAN COLONY	COL		0.7	24						
CHRYSOPHYTAN CELL	CEL			X						
CHRYSOPHYTAN COCCOID CELL #1	CEL	4	4.9	171						
CLOSTERIUM	CEL		0.7	24						
COCCONEIS	CEL						X			
COELASTRUM CAMBRICUM	COL						X			
COLONY	COL								0.2	21
COSMARIUM	CEL						X		0.2	21
CRYPTOMONAS ?	CEL				3	0.9	694			
CRYPTOMONAS EROSA	CEL		2.1	73						
CYANOPHYTAN FILAMENT	FIL								2.3	225
CYCLOTELLA MENEGHINIANA	CEL		0.7	24		0.3	00231			X
CYCLOTELLA MICHIGANIANA	CEL					0.2	116			
CYCLOTELLA STELLIGERA	CEL						X			X
CYMBELLA	CEL			X						
DACTYLOCOCCOPSIS	CEL				2	27.7	21412		0.4	41
DIATOMA	CEL			X						
EUGLENA	CEL						X			X
EUGLENA GRACILIS	CEL			X			X			
EUGLENA OXYURIS V. MINOR	CEL						X			
FLAGELLATE	CEL						X			
FLAGELLATE #1	CEL		0.7	24			X			X
FLAGELLATES	CEL								18.3	01825
FRANCEIA DROESCHERI	CEL						X			
GLENODINIUM	CEL						X			

LAKE NAME: LAKE SANGCHRIS CCNTINUED
STORET NUMBER: 1753

TAXA	FORM	05 07 73			08 10 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
GLENODINIUM EDAX	CEL						X			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X			
GOLENKINIA RADIATA	CEL								0.2	21
GYROSIGMA SCALPRCIDES	CEL						X			
MALLCMCNAS	CEL						X			
MELOSIRA ?	CEL	3	7.1	245						
MELOSIRA #4	CEL								0.2	21
MELOSIRA DISTANS	CEL					0.6	463	1	36.0	3589
MELOSIRA DISTANS V. LIMNETICA	CEL	1	71.3	2473						
MELOSIRA GRANULATA	CEL			X			X		1.0	102
MELOSIRA ITALICA	CEL							2	9.3	923
MERISMOPEDIA	COL							5	7.8	779
MERISMOPEDIA TENUISSIMA	COL						X		1.2	123
MESOSTIGMA VIRIDIS	CEL								0.6	61
MICROCYSTIS INCERTA	COL					0.4	347		1.2	123
NAVICULA	CEL									X
NAVICULA #1	CEL		0.7	24		0.2	116			X
NITZSCHIA #2	CEL								0.4	41
NITZSCHIA #3	CEL				4	0.8	579			
NITZSCHIA #4	CEL						X			
NITZSCHIA #5	CEL			X						
NITZSCHIA HOLSATICA ?	CEL					0.4	347		1.8	184
NITZSCHIA SPP.	CEL								0.4	41
NITZSCHIA TRYBLICNELLA ?	CEL						X			
OSCILLATORIA #1	FIL			X						
OSCILLATORIA LIMNETICA	FIL				1	67.5	52083			
PEDIASTRUM DUPLEX	COL			X						
PECIASTRUM SIMPLEX	COL			X						
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			X

LAKE NAME: LAKE SANGCHRIS CCNTINUED
STORET NUMBER: 1753

TAXA	FORM	05 07 73 S	%C	ALGAL UNITS PER ML	08 10 73 S	%C	ALGAL UNITS PER ML	10 18 73 S	%C	ALGAL UNITS PER ML
PENNATE DIATOM	CEL					0.2	116			
PENNATE CIATOMS	CEL								3.9	390
PERIDINIUM INCONSPICUUM	CEL						X			
PHACUS ACUMINATUS	CEL						X			
PHACUS PYRUM	CEL								0.2	21
RAPHIDICPSIS CURVATA	FIL								2.5	246
SCENEDESMUS	COL								0.2	21
SCENEDESMUS ARMATUS ?	COL						X			
SCENEDESMUS DENTICULATUS	COL								0.2	21
SCENEDESMUS DIMORPHUS	COL								0.4	41
SCENEDESMUS QUADRICAUDA	COL						X		1.2	123
SCENEDESMUS SPP.	COL					0.3	231			
STAURASTRUM TETRACERUM	CEL								0.2	21
STEPHANODISCUS	CEL									X
STEPHANODISCUS ASTRAEA	CEL					0.4	347			
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL	2	7.6	264						
SURIRELLA	CEL			X						
SURIRELLA #1	CEL									X
SYNEDRA #1	CEL	5	2.8	98						
SYNEDRA ACUS	CEL								1.4	143
SYNEDRA RADIANS	CEL								3.1	00308
SYNEDRA RUMPENS	CEL						X			
SYNEDRA ULNA	CEL						X			
TETRAEDRON	CEL								0.2	21
TETRASTRUM HETERACANTHUM	COL								0.6	61
TETRASTRUM STAUROGENIAEFORME	COL									X
TRACHELOMONAS PULCHELLA	CEL		0.7	24		0.2	116			
TOTAL				3468			77198			9968

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LAKE NAME: LAKE HOLICAY
STORET NUMBER: 1754


                                   NYGAARD TROPHIC STATE INDICES

                        DATE    05 09 73   08 07 73   10 16 73

                 MYXOPHYCEAN     03/0 E     0.50 E     1.50 E
              CHLOROPHYCEAN      0/0  O     5.50 E     5.50 E
                EUGLENOPHYTE     0.33 E     0.50 E     0.29 E
                      DIATOM     0.35 E     0.67 E     1.00 E
                    COMPOUND     10/0 E     11.0 E     10.5 E


                                 PALMER'S ORGANIC POLLUTION INDICES

                        DATE    05 09 73   08 07 73   10 16 73

                       GENUS          03         04         18
                     SPECIES          00         02         00


                               SPECIES DIVERSITY AND ABUNDANCE INDICES

                        DATE    05 09 73   08 07 73   10 16 73

              AVERAGE DIVERSITY    H      3.47       2.03       2.65
                 NUMBER OF TAXA    S     31.00      34.00      29.00
    NUMBER OF SAMPLES COMPOSITED   M      2.00       2.00       2.00
           MAXIMUM DIVERSITY    MAXH      4.95       5.09       4.86
                TOTAL DIVERSITY    D   3171.58   29400.49   13255.30
  TOTAL NUMBER OF INDIVIDUALS/ML   N    914.00   14483.00    5002.00
              EVENESS COMPONENT    J      0.70       0.40       0.55
   MEAN NUMBER OF INDIVIDUALS/TAXA L     29.48     425.97     172.48
  NUMBER/ML OF MOST ABUNDANT TAXON K    160.00    9415.00    2620.00
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LAKE NAME: LAKE HOLIDAY
STORET NUMBER: 1754

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
ACHNANTHES LANCEOLATA V. DUBIA	CEL						X			
ANABAENA	FIL		2.5	23						
ANKISTRODESMUS	CEL						X			
APHANIZOMENON FLOS-AQUAE	FIL				1	65.0	9415			
CERATIUM HIRUNDINELLA	CEL						X			
CHRYSOPHYTAN CYST	CEL		7.4	68						
CLOSTERIUM	CEL					0.3	45			
CLOSTERIUM CERATIUM	CEL							3	4.2	209
COCCONEIS PLACENTULA V. EUGLYPTA	CEL						X			
COELASTRUM	COL								1.0	52
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL								0.5	26
COELASTRUM MICROPORUM	COL								1.0	52
COELASTRUM RETICULATUM	COL				3	6.8	986			
COELASTRUM SPHAERICUM	COL					0.6	90			
COSMARIUM	CEL									X
CRUCIGENIA APICULATA	COL						X			
CRUCIGENIA QUADRATA	COL									X
CRYPTOMONAS	CEL	3	12.5	114						
CRYPTOMONAS ?	CEL					1.2	179			
CRYPTOMONAS EROSA	CEL							1	52.4	2620
CYANOPHYTAN FILAMENT	FIL	1	17.5	160						
CYCLOTELLA	CEL		5.0	46						
CYCLOTELLA MENEGHINIANA	CEL				5	2.5	359			
CYMBELLA	CEL									X
CYMBELLA PROSTRATA	CEL			X						
DACTYLOCOCCOPSIS ?	CEL			X						
DIATOMA	CEL		2.5	23						
DIATOMA VULGARE ?	CEL			X						
DINOBRYON	CEL								1.6	79

LAKE NAME: LAKE HOLIDAY
STORET NUMBER: 1754

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
EUGLENA	CEL			X						
EUGLENA SPIROIDES	CEL					0.3	45			
EUGLENA SPP.	CEL							5	2.6	131
FLAGELLATE #1	CEL	2	17.5	160		0.6	90			
FRAGILARIA CROTONENSIS	CEL			X						
FRAGILARIA INTERMEDIA ?	CEL			X						
GLENODINIUM	CEL								0.5	26
GLENODINIUM GYMNODINIUM	CEL					0.3	45			
GOMPHONEMA	CEL		2.5	23			X			
GYROSIGMA	CEL		2.5	23			X		0.5	26
GYROSIGMA SCALPROIDES	CEL			X						
KIRCHNERIELLA	CEL								0.5	26
LEPOCINCLIS ?	CEL					0.3	45			
MELOSIRA	CEL		2.5	23						
MELOSIRA DISTANS	CEL				4	9.9	1435		2.6	131
MELOSIRA GRANULATA	CEL			X		1.5	224		2.6	131
MELOSIRA GRANULATA #2	CEL			X						
MELOSIRA VARIANS	CEL			X						
MERIDION CIRCULARE ?	CEL			X						
MICROCYSTIS	COL								1.6	79
NAVICULA	CEL	5	7.4	68		0.3	45		1.0	52
NAVICULA #1	CEL			X						
NAVICULA #3	CEL			X						
NITZSCHIA #1	CEL			X						
OOCYSTIS	CEL					0.3	45			X
OSCILLATORIA	FIL								2.1	105
PANDORINA	COL			X						
PEDIASTRUM BORYANUM	COL								0.5	26
PEDIASTRUM DUPLEX	COL								0.5	26
PEDIASTRUM DUPLEX V. RETICULATUM	COL					0.3	45			
PEDIASTRUM SIMPLEX	COL								0.5	26

LAKE NAME: LAKE HOLIDAY
STORET NUMBER: 1754

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			
PHACUS ACUMINATUS	CEL					0.3	45			
PHACUS HELIKOIDES	CEL					0.3	45			
PHACUS LEMMERMANII ?	CEL					1.2	179			
PHACUS LONGICAUDA	CEL								0.5	26
PHACUS PLEURONECTES	CEL									X
PHACUS SPP.	CEL							4	1.6	79
RAPHIDIOPSIS	FIL								0.5	26
RHOICOSPHENIA CURVATA	CEL			X						
SCENEDESMUS BICAUDATUS	COL									X
SCENEDESMUS DIMORPHUS	COL						X			
SCHROEDERIA	CEL								3.1	157
SCHROEDERIA SETIGERA	CEL					0.3	45			
SPHAEROCYSTIS SCHROETERI	COL						X			
STAURASTRUM TETRACERUM	CEL						X			
STEPHANODISCUS	CEL	4	10.0	91				2	17.8	891
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL				2	7.1	1031			
SURIRELLA	CEL		5.0	46						
SYNEDRA	CEL		5.0	46		0.3	45			
SYNEDRA ULNA	CEL			X						
TETRASTRUM GLABRUM	COL						X			
TRACHELOMONAS	CEL						X			
TOTAL				914			14483			5002

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LAKE NAME: FOX LAKE
STORET NUMBER: 1755


                                        NYGAARD TROPHIC STATE INDICES

                               DATE   05 09 73   08 07 73   10 16 73

                        MYXOPHYCEAN     7.00 E     2.50 E     2.67 E
                      CHLOROPHYCEAN     14.0 E     3.25 E     6.00 E
                       EUGLENOPHYTE     0.29 E     0.13 ?     0.19 ?
                             DIATOM     0.35 E     0.75 E     1.33 E
                           COMPOUND     34.0 E     7.25 E     13.0 E


                                      PALMER'S ORGANIC POLLUTION INDICES

                               DATE   05 09 73   08 07 73   10 16 73

                              GENUS         19         08         12
                            SPECIES         06         02         06


                                    SPECIES DIVERSITY AND ABUNDANCE INDICES

                               DATE   05 09 73   08 07 73   10 16 73

               AVERAGE DIVERSITY    H       3.57       2.77       3.52
                  NUMBER OF TAXA    S      65.00      40.00      53.00
      NUMBER OF SAMPLES COMPOSITED  M       2.00       2.00       2.00
               MAXIMUM DIVERSITY MAXH       6.02       5.32       5.73
                 TOTAL DIVERSITY    D   33129.60   17218.32   18328.64
    TOTAL NUMBER OF INDIVIDUALS/ML  N    9280.00    5216.00    5207.00
              EVENESS COMPONENT     J       0.59       0.52       0.61
   MEAN NUMBER OF INDIVIDUALS/TAXA  L     142.77     155.40      98.25
 NUMBER/ML OF MOST ABUNDANT TAXON   K    2025.00    2631.00    1470.00
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LAKE NAME: FOX LAKE
STORET NUMBER: 1755

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII ?	CEL			X						
AMPHIPRORA	CEL			X						
ANABAENA	FIL					1.7	108			
ANABAENA #1	FIL			X		2.1	129			
ANABAENA #2	FIL						X			
ANABAENA #7	FIL									X
ANKISTRODESMUS #1	CEL		1.3	118						
ANKISTRODESMUS #2	CEL			X						
APHANIZOMENON FLOS-AQUAE	FIL		3.8	353	1	42.3	2631	3	11.8	617
APHANOCAPSA ELACHISTA	COL			X						
ASTERIONELLA FORMOSA	CEL	3	12.9	1201						X
CHLAMYDOMONAS	CEL		0.8	71						
CHROOCOCCUS LIMNETICUS ?	COL						X			
CLOSTERIUM	CEL					0.4	22			
CLOSTERIUM #1	CEL						X			X
COCCONEIS PLACENTULA V. LINEATA	CEL			X						
COELASTRUM CAMBRICUM	COL						X			
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL								0.3	18
COELASTRUM MICROPORUM	COL			X					0.3	18
COELASTRUM SPHAERICUM	COL						X			
COELOSPHAERIUM NAEGELIANUM	COL									X
COSCINODISCUS	CEL			X						
COSMARIUM #1	CEL						X			X
COSMARIUM #2	CEL			X						
CRUCIGENIA APICULATA	COL					0.4	22			
CRYPTOMONAS	CEL		8.6	800						
CRYPTOMONAS CURVATA	CEL			X						
CRYPTOMONAS EROSA	CEL								2.4	127
CYCLOTELLA MENEGHINIANA	CEL	5	8.5	800		1.0	65	4	5.9	309
CYMBELLA CISTULA ?	CEL									X

LAKE NAME: FOX LAKE
STORET NUMBER: 1755

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
CYMBELLA TRIANGULUM	CEL			X						
DACTYLOCOCCOPSIS	CEL								0.3	18
DIATOMA TENUE V. ELONGATUM	CEL		1.3	118						
DICTYOSPHAERIUM PULCHELLUM	COL		0.3	24			X			X
DINOBRYON	CEL	2	21.8	2025						
DINOBRYON DIVERGENS	CEL			X						
DINOFLAGELLATE	CEL		0.3	24						
DINOFLAGELLATE #1	CEL					0.4	22			
DINOFLAGELLATE #2	CEL								0.3	18
EPITHEMIA	CEL			X			X			
EUGLENA	CEL		0.3	24			X			
EUGLENA #1	CEL								0.7	36
EUGLENA #2	CEL								0.3	18
EUGLENA ACUS	CEL			X						
EUGLENA GRACILIS	CEL			X						
EUNOTIA	CEL			X						
FLAGELLATE #1	CEL		3.0	283						
FLAGELLATE #9	CEL			X						
FLAGELLATES	CEL		4.3	400		0.4	22		4.5	236
FRAGILARIA	CEL			X						
FRAGILARIA CROTONENSIS	CEL			X						
GLENODINIUM GYMNODINIUM	CEL					1.7	108			
GOMPHONEMA	CEL			X						
GOMPHONEMA ACUMINATUM V. ELONGATUM	CEL			X						
GOMPHOSPHAERIA LACUSTRIS	COL			X		1.7	108			X
GYROSIGMA ATTENUATUM	CEL			X						
LEPOCINCLIS	CEL			X						
MELOSIRA #4	CEL		1.5	141					1.7	91
MELOSIRA DISTANS	CEL								2.1	109
MELOSIRA GRANULATA	CEL		3.8	353	2	16.3	1014		2.1	109

LAKE NAME: FOX LAKE
STORET NUMBER: 1755

CCNTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL							1	28.2	1470
MELOSIRA ITALICA	CEL							2	17.1	889
MELOSIRA VARIANS	CEL			X						X
MESOSTIGMA VIRIDIS	CEL								0.3	18
MICRACTINIUM PUSILLUM	CCL			X						
MICROCYSTIS AERUGINOSA	COL			X	4	4.9	302		5.2	272
MICRCCYSTIS INCERTA	COL		0.3	24		0.4	22			X
NAVICULA	CEL			X						
NITZSCHIA	CEL		0.3	24			X			
OOCYSTIS	CEL			X		4.2	259		5.9	309
OSCILLATORIA	FIL		0.8	71	5	4.2	259			X
PANDORINA MORUM	COL			X						X
PEDIASTRUM BORYANUM	COL			X					0.3	18
PEDIASTRUM DUPLEX	COL			X						
PECIASTRUM CUPLEX V. RETICULATUM	COL						X			X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			X
PEDIASTRUM TETRAS	COL									X
PENNATE DIATOM	CEL		0.5	47			X			
PENNATE DIATOMS	CEL								1.4	73
PHACUS	CEL			X			X			
PHACUS ACUMINATUS ?	CEL						X			X
PHACUS HELIKOIDES	CEL									X
PHACUS PYRUM	CEL			X						X
PHCRMIDIUM MUCICCLA	COL					0.4	22			
SCENEDESMUS	COL					0.4	22			
SCENEDESMUS ABUNDANS	COL			X						
SCENEDESMUS ACUTUS	COL									X
SCENEDESMUS ACUTUS V. ALTERNANS	COL			X						

LAKE NAME: FOX LAKE
STORET NUMBER: 1755

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL						X			
SCENEDESMUS DENTICULATUS	COL									X
SCENEDESMUS DIMORPHUS	COL			X					1.0	54
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL						X		0.3	18
SCENEDESMUS OPOLIENSIS	COL									X
SCENEDESMUS PROTUBERANS	COL					0.4	22			
SCENEDESMUS QUADRICAUDA	COL		1.3	118					1.7	91
SCHROEDERIA SETIGERA	CEL								0.7	36
SPHAEROCYSTIS SCHROETERI	COL					0.7	43			X
STAURASTRUM #1	CEL									X
STAURASTRUM #2	CEL						X			
STEPHANODISCUS	CEL	4	10.2	942						
STEPHANODISCUS ASTRAEA	CEL	1	13.2	1224	3	16.0	992	5	3.5	181
SURIRELLA	CEL									X
SURIRELLA OVATA	CEL			X						
SYNEDRA	CEL					0.4	22			
SYNEDRA #1	CEL								0.7	36
SYNEDRA #2	CEL			X						X
SYNEDRA DELICATISSIMA	CEL			X						
SYNEDRA RADIANS	CEL		0.8	71						
SYNEDRA ULNA V. AMPHIRHYNCHUS	CEL		0.3	24						
TETRAEDRON LIMNETICUM	CEL						X			
TETRAEDRON MUTICUM	CEL									X
TETRASTRUM	COL								0.3	18
TETRASTRUM STAUROGENIAEFORME	COL			X						
TOTAL				9280			6216			5207

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LAKE NAME: GRASS LAKE
STORET NUMBER: 1756

                                          NYGAARD TROPHIC STATE INDICES

                                  DATE    05 09 73   08 07 73   10 16 73

                           MYXOPHYCEAN      1.50 E     4.50 E     1.33 E
                         CHLOROPHYCEAN      5.00 E     8.50 E     3.00 E
                          EUGLENOPHYTE      0.15 ?     0.23 E     0.62 E
                                DIATOM      0.27 ?     0.43 E     0.23 ?
                              COMPOUND      9.50 E     19.0 E     9.00 E

                                        PALMER'S ORGANIC POLLUTION INDICES

                                  DATE    05 09 73   08 07 73   10 16 73

                                 GENUS          25         20         18
                               SPECIES          06         06         04

                                     SPECIES DIVERSITY AND ABUNDANCE INDICES

                                  DATE    05 09 73   08 07 73   10 16 73

                   AVERAGE DIVERSITY    H       3.39       3.04       3.15
                      NUMBER OF TAXA    S      50.00      62.00      69.00
         NUMBER OF SAMPLES COMPOSITED   M       2.00       2.00       2.00
                   MAXIMUM DIVERSITY MAXH       5.64       5.95       6.11
                     TOTAL DIVERSITY    D   34805.13   78821.12   56003.85
       TOTAL NUMBER OF INDIVIDUALS/ML   N   10267.00   25928.00   17779.00
                  EVENESS COMPONENT     J       0.60       0.51       0.52
     MEAN NUMBER OF INDIVIDUALS/TAXA    L     205.34     418.19     257.67
   NUMBER/ML OF MOST ABUNDANT TAXON     K    2723.00   10253.00    4048.00
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LAKE NAME: GRASS LAKE CONTINUED
STORET NUMBER: 1756

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
AMPHIPRORA ORNATA	CEL									X
ANABAENA	FIL					0.4	99			X
ANKISTRODESMUS FALCATUS	CEL		2.4	246						
APHANIZOMENON FLOS-AQUAE	FIL					1.9	493			
ASTERIONELLA FORMOSA	CEL		0.2	22					0.9	159
CALONEIS LEWISII	CEL									X
CENTRIC DIATOM	CEL							2	22.8	4048
CHILOMONAS PARAMAECIUM	CEL		1.5	156						
CHLAMYDOMONAS #1	CEL			X						
CHLAMYDOMONAS #2	CEL			X						
CHLAMYDOMONAS SPHAGNICOLA	CEL		0.4	45						
CHLOROGONIUM	CEL			X						
CHLOROPHYTAN COCCOID CELL	CEL	2	17.6	1808						X
CHLOROPHYTAN COCCOID CELLED COLONY	COL					0.6	148			
CHLOROPHYTAN FLAGELLATE	CEL						X			
CHROOMONAS ?	CEL			X						
CHROOMONAS ? NORDSTEDTII ?	CEL									X
CHRYSOPHYTAN COCCOID CELL	CEL		1.1	112						
CLOSTERIOPSIS LONGISSIMA	CEL			X			X			
COCCOID COLONY	COL					0.2	49			
COCCONEIS	CEL						X			X
COCCONEIS #2	CEL						X			
COCCONEIS SCUTELLUM	CEL			X						
COELASTRUM	COL					0.2	49			X
COELASTRUM MICROPORUM	COL			X						
COELASTRUM SPHAERICUM	COL					0.8	197			
COSCINODISCUS LACUSTRIS	CEL				2	27.4	7098			
COSMARIUM	CEL						X			
COSMARIUM #2	CEL								0.2	40
CRUCIGENIA TETRAPEDIA	COL			X		0.6	148			
CRYPTOMONAS CURVATA	CEL									X
CRYPTOMONAS EROSA	CEL		4.1	424		2.5	641			X

LAKE NAME: GRASS LAKE
STORET NUMBER: 1756

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
CRYPTOMONAS SPP.	CEL								6.9	1230
CYCLOTELLA MENEGHINIANA	CEL	4	13.3	1362	1	39.5	10253	1	22.8	4048
CYMATOPLEURA SOLEA	CEL									X
CYMBELLA	CEL						X			X
DACTYLOCOCCOPSIS	CEL					2.5	641		6.0	1071
DIATOMA	CEL									X
DIATOMA ELONGATUM	CEL			X						
DIATOMA TENUE V. ELONGATUM	CEL		1.1	112						
DICTYOSPHAERIUM PULCHELLUM	COL			X						X
DINOBRYON BAVARICUM	CEL									X
DINOBRYON SERTULARIA	CEL	1	26.5	2723			X			X
DINOBRYON SPP.	CEL								0.2	40
EPITHEMIA #1	CEL									X
EPITHEMIA TURGIDA	CEL						X			X
EUGLENA #1	CEL						X		0.4	79
EUGLENA #2	CEL					0.6	148			X
EUGLENA ACUS	CEL						X			X
EUGLENA GRACILIS	CEL		1.7	179					0.2	40
EUNOTIA	CEL			X						
EUNOTIA #1	CEL									X
EUNOTIA #2	CEL									X
FLAGELLATE #1	CEL	5	8.0	826		1.3	345	3	10.9	1944
FRAGILARIA CROTONENSIS	CEL			X						X
GLENODINIUM	CEL									X
GLENODINIUM PENARDIFORME ?	CEL					2.1	542			
GOMPHONEMA #5	CEL									X
GOMPHONEMA ACUMINATUM ?	CEL									X
GOMPHONEMA PARVULUM	CEL						X			
GYMNODINIUM ORDINATUM	CEL			X						
GYROSIGMA	CEL									X
LEPOCINCLIS	CEL					0.2	49			

LAKE NAME: GRASS LAKE
STORET NUMBER: 1756

CONTINUED

TAXA	FORM	05 09 73			08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
LYNGBYA LIMNETICA	FIL		0.7	67						X
MALLOMONAS ACAROIDES	CEL						X			
MELOSIRA #4	CEL				3	3.2	838	4	10.7	1905
MELOSIRA GRANULATA	CEL			X	4	3.0	789			
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X			X
MELOSIRA ITALICA	CEL			X						
MELOSIRA SPP.	CEL							5	9.8	1746
MELOSIRA VARIANS	CEL								1.3	238
MERISMOPEDIA GLAUCA ?	COL					0.4	99			
MERISMOPEDIA TENUISSIMA	COL					1.3	345			
MICRACTINIUM PUSILLUM	COL									X
MICROCYSTIS AERUGINOSA	COL					0.2	49			
MICROCYSTIS INCERTA	COL					0.8	197			
NAVICULA #1	CEL			X			X			
NAVICULA #2	CEL						X			
NAVICULA #3	CEL						X			X
NAVICULA #4	CEL			X						X
NAVICULA #5	CEL			X						
NAVICULA #6	CEL		0.9	89						
NAVICULA #7	CEL									X
NITZSCHIA #1	CEL									X
NITZSCHIA #2	CEL		0.7	67						
NITZSCHIA #3	CEL			X						
NITZSCHIA #4	CEL						X			
NITZSCHIA HOLSATICA ?	CEL				5	2.7	690			X
OOCYSTIS	CEL					0.4	99			
OSCILLATORIA	FIL		1.3	134					0.9	159
OSCILLATORIA #1	FIL					0.8	197			
OSCILLATORIA LIMNETICA	FIL		5.9	603		1.1	296			
PEDIASTRUM BORYANUM	COL									X
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X			

LAKE NAME: GRASS LAKE
STORET NUMBER: 1756

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
PEDIASTRUM DUPLEX V. RUGULOSUM	COL						X			
PEDIASTRUM SIMPLEX	COL									X
PENNATE DIATOM #1	CEL					0.8	197			
PENNATE DIATOM #2	CEL					0.4	99			
PHACUS CAUDATUS	CEL			X			X			X
PHACUS HELIKOIDES	CEL						X			
PHACUS PYRUM	CEL									X
PHACUS SWIRENKOI	CEL									X
PTEROMONAS	CEL			X						X
SCENEDESMUS ABUNDANS	COL					0.6	148			
SCENEDESMUS ACUTUS V. ALTERNANS	COL			X						
SCENEDESMUS BIJUGA	COL		0.2	22						X
SCENEDESMUS DENTICULATUS	COL			X						
SCENEDESMUS DIMORPHUS	COL									X
SCENEDESMUS INTERMEDIUS	COL					1.3	345			X
SCENEDESMUS OBLIQUUS	COL		0.2	22						
SCENEDESMUS OVALTERNUS	COL						X			
SCENEDESMUS PROTUBERANS	COL						X			X
SCENEDESMUS QUADRICAUDA	COL		0.2	22		1.9	493			
SCENEDESMUS SPP.	COL								2.7	476
SCHROEDERIA SETIGERA	CEL					0.2	49			
SPHAEROCYSTIS SCHROETERI	COL					0.2	49			
STAURASTRUM	CEL			X			X		0.2	40
STAURASTRUM #2	CEL									X
STAURASTRUM #3	CEL		0.2	22						
STAURONEIS #1	CEL									X
STAURONEIS PHOENICENTERON	CEL						X			X
STEPHANODISCUS ?	CEL	3	7.2	736						
STEPHANODISCUS NIAGARAE	CEL						X		0.7	119
SURIRELLA	CEL		0.2	22						X

LAKE NAME: GRASS LAKE
STORET NUMBER: 1756

CONTINUED

TAXA	FORM	05 09 73 S	05 09 73 %C	05 09 73 ALGAL UNITS PER ML	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
SYNCRYPTA VOLVOX ?	COL			X						
SYNEDRA #1	CEL		4.1	424						
SYNEDRA #2	CEL									
SYNEDRA #3	CEL									X
SYNEDRA ULNA	CEL		0.2	22					2.0	357
TETRAEDRON CAUDATUM	CEL						X			X
TETRAEDRCN TRIGONUM	CEL						X			
TETRASTRUM STAUROGENIAEFORME	COL					0.2	49			
TRACHELCMONAS URCEOLATA ?	CEL						X		0.2	40
TOTAL				10267			25928			17779

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LAKE NAME: EAST LOON LAKE
STORET NUMBER: 1757

                                        NYGAARD TROPHIC STATE INDICES

                                 DATE   08 07 73   10 16 73

                          MYXOPHYCEAN   3.00 E     8.00 E
                        CHLOROPHYCEAN   1.67 E     5.00 E
                         EUGLENOPHYTE   0/14 ?     0.08 ?
                               DIATOM   0.33 E     0.27 ?
                             COMPOUND   5.33 E     17.0 E

                                       PALMER'S ORGANIC POLLUTION INDICES

                                 DATE   08 07 73   10 16 73

                                GENUS         11         05
                              SPECIES         02         C0

                                      SPECIES DIVERSITY AND ABUNDANCE INDICES

                                 DATE   08 07 73   10 16 73

              AVERAGE DIVERSITY     H       3.30       2.55
                 NUMBER OF TAXA     S      31.00      35.00
     NUMBER OF SAMPLES COMPOSITED   M       1.00       1.00
            MAXIMUM DIVERSITY MAXH          4.95       5.13
                  TOTAL DIVERSITY   D   32518.20    9284.55
   TOTAL NUMBER OF INDIVIDUALS/ML   N    9854.00    3641.00
               EVENESS COMPONENT    J       0.67       0.50
   MEAN NUMBER OF INDIVIDUALS/TAXA  L     317.87     104.03
  NUMBER/ML OF MOST ABUNDANT TAXON  K    3981.00    2110.00
```

LAKE NAME: EAST LOON LAKE CONTINUED
STORET NUMBER: 1757

TAXA	FORM	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
ANABAENA	FIL					1.0	36
ANABAENA SPIROIDES	FIL					1.5	54
APHANIZOMENON FLOS-AQUAE	FIL			X	1	58.0	2110
ARTHROSPIRA JENNERI	FIL	2	11.9	1175			
CHROOCOCCUS	COL	5	3.8	379		2.5	90
CHRYSOPHYTAN FLAGELLATE	CEL		1.9	190			
CLOSTERIUM	CEL			X			X
CLOSTERIUM SPP.	CEL		3.5	341			
COCCONEIS	CEL						X
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL						X
COELASTRUM MICROPORUM	COL					0.5	18
COELOSPHAERIUM	COL		3.1	303			
CRUCIGENIA TETRAPEDIA	COL		3.8	376			
CRYPTOMONAS	CEL		3.1	303	5	3.0	108
CRYPTOMONAS EROSA	CEL						X
CYCLOTELLA ?	CEL		0.4	38			
CYMBELLA	CEL						X
DINOBRYON	CEL		0.8	76		1.5	54
EUGLENA	CEL					1.0	36
EUNOTIA PECTINALIS V. MINOR	CEL		0.8	76			
FLAGELLATE	CEL					1.0	36
FRAGILARIA	CEL					1.0	36
FRAGILARIA CROTONENSIS	CEL						X
GLENODINIUM	CEL		0.8	76			
GLOEOCYSTIS ?	COL		1.2	114			
GOMPHOSPHAERIA	COL				3	4.9	180
GYROSIGMA	CEL						X
GYROSIGMA SPENCERII	CEL			X			
LYNGBYA	FIL	1	40.4	3981		2.5	90
MELOSIRA GRANULATA	CEL		0.8	76	2	9.9	361

LAKE NAME: EAST LOON LAKE
STCRET NUMBER: 1757

CONTINUED

TAXA	FORM	08 07 73 S	08 07 73 %C	08 07 73 ALGAL UNITS PER ML	10 16 73 S	10 16 73 %C	10 16 73 ALGAL UNITS PER ML
MELOSIRA VARIANS	CEL					1.0	36
MERISMOPEDIA TENUISSIMA	COL	4	6.9	682			
MICROCYSTIS	COL				4	5.9	216
MICROCYSTIS INCERTA	COL	3	5.0	492			
MOUGEOTIA	FIL			X			
NAVICULA	CEL		3.5	341			
NAVICULA #1	CEL						X
NAVICULA #2	CEL						X
NAVICULA ANGLICA	CEL			X			
NAVICULA CUSPIDATA ?	CEL					0.5	18
NAVICULA SPP.	CEL					1.0	36
NITZSCHIA	CEL						X
OOCYSTIS	CEL						X
OOCYSTIS PARVA	CEL		0.8	76			
OSCILLATORIA	FIL		4.2	417		1.0	36
PENNATE DIATOM	CEL		0.4	38			
PINNULARIA	CEL					0.5	18
RAPHIDIOPSIS	FIL		1.5	152			
SCENEDESMUS	COL			X			
SCENEDESMUS ?	COL		0.4	38			
SCENEDESMUS ECORNIS V. DISCIFORMIS	COL						X
SCHROEDERIA	CEL		0.8	76		1.0	36
STAURASTRUM	CEL			X			
STEPHANODISCUS	CEL						X
SYNEDRA	CEL		0.4	38			
SYNURA	CEL					0.5	18
TABELLARIA FENESTRATA	CEL					0.5	18
TOTAL				9854			3641

```
LAKE NAME: SLOCUM LAKE
STORET NUMBER: 1758

                                          NYGAARD TROPHIC STATE INDICES

                                      DATE   08 07 73   10 16 73

                               MYXOPHYCEAN     1.67 E     1.00 E
                             CHLOROPHYCEAN     2.67 E     7.00 E
                             EUGLENOPHYTE      0/13 ?     0/08 ?
                                    DIATOM     1.00 E     1.33 E
                                  COMPOUND     5.67 E     12.0 E


                                          PALMER'S ORGANIC POLLUTION INDICES

                                      DATE   08 07 73   10 16 73

                                     GENUS         06         09
                                   SPECIES         00         02


                                          SPECIES DIVERSITY AND ABUNDANCE INDICES

                                      DATE   08 07 73   10 16 73

                  AVERAGE DIVERSITY      H       0.67       0.71
                     NUMBER OF TAXA      S      26.00      16.00
       NUMBER OF SAMPLES COMPOSITED      M       1.00       1.00
                  MAXIMUM DIVERSITY   MAXH       4.70       4.00
                    TOTAL DIVERSITY      D   20759.28   13551.77
     TOTAL NUMBER OF INDIVIDUALS/ML      N   30984.00   19087.00
                  EVENESS COMPONENT      J       0.14       0.18
   MEAN NUMBER OF INDIVIDUALS/TAXA      L    1191.69    1192.94
   NUMBER/ML OF MOST ABUNDANT TAXON      K   28338.00   17189.00
```

LAKE NAME: SLOCUM LAKE
STCRET NUMBER: 1758

CONTINUED

TAXA	FORM	08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ANKISTRODESMUS	CEL					0.2	39
APHANIZCMENON FLOS-AQUAE	FIL	1	91.5	28338	1	90.1	17189
BOTRYOCOCCUS BRAUNII	COL						X
CLOSTERIUM	CEL	5	0.6	189	3	1.2	232
COCCONEIS	CEL			X			
CCELOSPHAERIUM	COL		0.4	126			
COSMARIUM	CEL			X			
CRYPTCMONAS EROSA	CEL		0.4	126			
CYCLOTELLA MENEGHINIANA	CEL			X	5	1.4	271
CYMBELLA	CEL						X
FRUSTULIA RHOMBOIDES	CEL						X
MALLCMONAS	CEL		0.2	63			
MELOSIRA GRANULATA	CEL	2	3.3	1008	4	0.8	155
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL				2	4.9	929
MELOSIRA ITALICA	CEL	3	1.4	441			
MERISMOPEDIA GLAUCA	COL		0.4	126			
MICROCYSTIS	COL			X			
MICROCYSTIS INCERTA	COL	4	0.6	189			
NAVICULA	CEL		0.2	63			
NITZSCHIA ACICULARIS	CEL			X			
OOCYSTIS	CEL		0.4	126			
OOCYSTIS PARVA	CEL			X			
PEDIASTRUM BORYANUM	COL			X			
PEDIASTRUM DUPLEX	COL			X			
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X			
SCENEDESMUS ACUMINATUS	COL			X		0.2	39
SCENEDESMUS BERNARDII	COL						X
SCENEDESMUS OPOLIENSIS	COL					0.2	39
SCENEDESMUS PROTUBERANS	COL			X			
SCHROEDERIA	CEL		0.4	126			

LAKE NAME: SLOCUM LAKE CONTINUED
STORET NUMBER: 1758

TAXA	FORM	08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SCHROEDERIA SETICERA	CEL					0.2	39
STAURASTRUM	CEL		0.2	63			
STEPHANODISCUS	CEL			X			
STEPHANODISCUS ASTRAEA V. MINUTULA	CEL					0.2	39
SYNEDRA	CEL					0.6	116
SYNEDRA ULNA	CEL			X			
TETRAEDRCN GRACILE	CEL						X
TOTAL				30984			19087

LAKE NAME: CEDAR LAKE
STORET NUMBER: 1759

NYGAARD TROPHIC STATE INDICES

DATE	08 07 73	10 16 73
MYXOPHYCEAN	07/0 E	07/0 E
CHLOROPHYCEAN	05/0 E	01/0 E
EUGLENOPHYTE	0/12 ?	0/08 ?
DIATOM	0/06 ?	0.33 E
COMPOUND	12/0 E	09/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	08 07 73	10 16 73
GENUS	05	06
SPECIES	00	04

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	08 07 73	10 16 73
AVERAGE DIVERSITY	H	3.76	3.25
NUMBER OF TAXA	S	24.00	15.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	1.00
MAXIMUM DIVERSITY	MAXH	4.58	3.91
TOTAL DIVERSITY	D	4572.16	6337.50
TOTAL NUMBER OF INDIVIDUALS/ML	N	1216.00	1950.00
EVENESS COMPONENT	J	0.82	0.83
MEAN NUMBER OF INDIVIDUALS/TAXA	L	50.67	130.00
NUMBER/ML OF MOST ABUNDANT TAXON	K	229.00	396.00

LAKE NAME: CEDAR LAKE
STCRET NUMBER: 1759

CONTINUED

TAXA	FORM	08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ANABAENA	FIL					4.1	79
ANABAENA SPIROIDES	FIL			X			
ANABAENOPSIS	FIL						X
APHANIZCMENCN	FIL		4.4	53			
APHANIZOMENON FLOS-AQUAE	FIL				2	16.2	316
CERATIUM HIRUNDINELLA	CEL			X			
CHROOCOCCUS	COL		8.7	106		12.2	237
COCCONEIS	CEL		4.4	53		1.3	26
CRUCIGENIA QUADRATA	COL		1.5	18			
CRYPTOMCNAS	CEL		2.9	35			
CRYPTOMONAS EROSA	CEL				5	6.8	132
CYCLOTELLA	CEL					8.1	158
DICTYOSPHAERIUM	COL		2.9	35			
DINOBRYON	CEL	3	13.0	158	1	20.3	396
DINOFLAGELLATE	CEL	4	2.9	35			
FLAGELLATE	CEL		5.8	70			
FLAGELLATE #1	CEL						X
FRAGILARIA CROTONENSIS	CEL			X			X
GLENODINIUM	CEL			X			
GCMPHOSPHAERIA	CEL	1	18.8	229			
MERISMOPEDIA	COL			X	3	12.2	237
MICROCYSTIS	COL	5	8.7	106			
MICROCYSTIS AERUGINOSA	COL					5.4	106
MICROCYSTIS INCERTA	COL	2	7.2	88	4	8.1	158
NAVICULA	CEL					1.3	26
NAVICULA SPP.	CEL		2.9	35			
OOCYSTIS	CEL		1.5	18			
PENNATE DIATOM	CEL			X			
SCENEDESMUS BIJUGA	COL		8.7	106			
SCENEDESMUS QUADRICAUDA	COL					4.1	79
SCHROEDERIA	CEL		1.5	18			
SYNEDRA	CEL		1.5	18			

LAKE NAME: CEDAR LAKE CONTINUED
STORET NUMBER: 1759

TAXA	FORM	08 07 73			10 16 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SYNURA	CEL		2.9	35			
TOTAL				1216			1950

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LAKE NAME: LAKE WE-MA-TUK
STORET NUMBER: 1761

                                        NYGAARD TROPHIC STATE INDICES

                                  DATE    08 09 73   10 17 73

                          MYXOPHYCEAN      2.00 E     1.33 E
                         CHLOROPHYCEAN     1.67 E     2.67 E
                         EUGLENOPHYTE      0.55 E     0.50 E
                               DIATOM      1.00 E     3.00 E
                             COMPOUND      6.67 E     7.00 E


                                        PALMER'S ORGANIC POLLUTION INDICES

                                  DATE    08 09 73   10 17 73

                                 GENUS          11         07
                               SPECIES          02         02


                                   SPECIES DIVERSITY AND ABUNDANCE INDICES

                                       DATE    08 09 73   10 17 73

                  AVERAGE DIVERSITY      H         2.81       3.35
                     NUMBER OF TAXA      S        29.00      34.00
        NUMBER OF SAMPLES COMPOSITED     M         2.00       2.00
                  MAXIMUM DIVERSITY   MAXH         4.86       5.09
                    TOTAL DIVERSITY      D     10419.48    4981.45
      TOTAL NUMBER OF INDIVIDUALS/ML     N      3708.00    1487.00
                  EVENESS COMPONENT      J         0.58       0.66
    MEAN NUMBER OF INDIVIDUALS/TAXA      L       127.86      43.74
   NUMBER/ML OF MOST ABUNDANT TAXON      K      1203.00     368.00
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LAKE NAME: LAKE WE-MA-TUK
STORET NUMBER: 1751

CONTINUED

TAXA	FORM	08 09 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ANABAENA	FIL			X			
APHANIZOMENON FLOS-AQUAE	FIL		0.7	25		1.3	20
BOTRYOCOCCUS	COL			X			
BOTRYOCOCCUS ?	COL						X
CHLAMYDOMONAS	CEL						X
CHLOROPHYTAN CELL	CEL						X
CHLOROPHYTAN COCCOID CELL	CEL					0.7	10
CHLOROPHYTAN COLONY	COL					0.7	10
CHRYSOPHYTAN COCCOID CELL	CEL					2.0	30
CLOSTERIUM #1	CEL		2.0	00075		0.8	12
CLOSTERIUM #2	CEL		0.7	25		2.2	33
COCCOID COLONY	COL			X			
COELASTRUM MICROPORUM	COL					0.8	12
COELASTRUM RETICULATUM	COL	2	21.6	802		3.8	57
COELOSPHAERIUM COLLINSII	COL			X			
COSMARIUM	CEL		0.7	25			
CRUCIGENIA TETRAPEDIA	COL	4	6.8	251			
CRYPTOMONAS EROSA	CEL				4	8.8	131
CYCLOTELLA MENEGHINIANA	CEL	5	5.4	200	2	20.8	309
CYCLOTELLA STELLIGERA	CEL			X			
DINOBRYON DIVERGENS	CEL						X
EUGLENA #1	CEL			X			
EUGLENA #2	CEL			X			
EUGLENA #3	CEL						X
EUGLENA ACUS	CEL		0.7	25			
EUGLENA OXYURIS V. MINOR	CEL						X
EUGLENA TRIPTERIS ?	CEL			X			
FLAGELLATE	CEL		2.0	75			
FLAGELLATE #1	CEL					6.1	90
FLAGELLATE #2	CEL					1.5	23
GOMPHOSPHAERIA LACUSTRIS	COL						X

LAKE NAME: LAKE WE-MA-TUK
STORET NUMBER: 1761

CONTINUED

TAXA	FORM	08 09 73 S	08 09 73 %C	08 09 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
LEPOCINCLIS ?	CEL					0.8	12
MELOSIRA GRANULATA	CEL			X		4.1	61
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL				1	24.7	368
MERISMOPEDIA TENUISSIMA	COL		0.7	25			
NAVICULA	CEL						X
OOCYSTIS	CEL			X			X
CSCILLATORIA #1	FIL		2.7	100	3	10.4	154
OSCILLATORIA #2	FIL	3	19.6	727	5	6.1	91
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X
PENNATE DIATOM	CEL		0.7	25			
PERIDINIUM	CEL			X			
PHACUS ACUMINATUS	CEL		1.3	50			
PHACUS PLEURONECTES	CEL			X			X
PHACUS PYRUM	CEL						X
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL						X
SCHROEDERIA SETIGERA	CEL					4.3	64
SPHAEROCYSTIS SCHROETERI	COL	1	32.4	1203			X
STAURASTRUM	CEL						X
SYNEDRA #1	CEL			X			
SYNEDRA #2	CEL		2.0	75			
TRACHELCMONAS	CEL						X
TOTAL				3708			1487

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LAKE NAME: RACCOON LAKE
STORET NUMBER: 1762

                              NYGAARD TROPHIC STATE INDICES

                      DATE    05 11 73   08 08 73   10 19 73

              MYXOPHYCEAN     0/03 O     07/0 E     6.00 E
            CHLOROPHYCEAN     0.67 ?     03/0 E     3.00 E
             EUGLENOPHYTE     3.00 E     0.60 E     0.33 E
                   DIATOM     1.33 E     4.00 E     0.50 E
                 COMPOUND     4.00 E     20/0 E     16.0 E

                          PALMER'S ORGANIC POLLUTION INDICES

                      DATE    05 11 73   08 08 73   10 19 73

                     GENUS          02         09         06
                   SPECIES          00         05         00

                         SPECIES DIVERSITY AND ABUNDANCE INDICES

                           DATE       05 11 73   08 08 73   10 19 73

             AVERAGE DIVERSITY    H       2.41       2.06       3.07
                NUMBER OF TAXA    S      26.00      27.00      27.00
   NUMBER OF SAMPLES COMPOSITED   M       2.00       2.00       2.00
            MAXIMUM DIVERSITY  MAXH       4.70       4.75       4.75
                TOTAL DIVERSITY   D   11276.39   53384.90   14646.97
  TOTAL NUMBER OF INDIVIDUALS/ML  N    4679.00   25915.00    4771.00
             EVENESS COMPONENT    J       0.51       0.43       0.65
   MEAN NUMBER OF INDIVIDUALS/TAXA L    179.96     959.81     176.70
  NUMBER/ML OF MOST ABUNDANT TAXON K   1933.00   16712.00    1195.00
```

LAKE NAME: RACCCCN LAKE
STORET NUMBER: 1762

CONTINUED

TAXA	FORM	05 11 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ANABAENA	FIL						X			
ANKISTRCDESMUS FALCATUS	CEL					1.6	412			
APHANOCAPSA RIVULARIS ?	CEL						X			
CENTRIC DIATOM	CEL	5	9.0	421	3	4.8	1236	3	14.7	702
CHILOMCNAS PARAMAECIUM	CEL					0.9	229			
CHLAMYDOMONAS	CEL			X						
CHLOROPHYTAN CELL	CEL						X			
CHRYSOPHYTAN COCCOID CELL #1	CEL	4	4.3	203						
CHRYSOPHYTAN COCCOID CELL #2	CEL	2	23.3	1091						
CHRYSOPHYTAN CYST	CEL			X						
CLCSTERIUM	CEL			X					0.2	11
CLCSTERIUM CERATIUM	CEL		0.3	16						
COCCOID CELL	CEL								4.8	230
CRYPTOMONAS	CEL								0.2	1'
CRYPTOMCNAS EROSA	CEL	3	15.0	701						
CYCLOTELLA MENEGHINIANA	CEL					2.7	687			
CYMBELLA	CEL			X						
DACTYLOCCCCOPSIS	CEL				2	9.2	2381		6.9	329
DIPLCNEIS	CEL									X
EUGLENA	CEL						X			
EUGLENA ACUS	CEL			X						
EUGLENA GRACILIS	CEL		0.3	16						
EUGLENA GRACILIS ?	CEL						X			
EUGLENA OXYURIS V. MINOR	CEL									X
EUGLENA TRIPTERIS	CEL									X
FLAGELLATE #1	CEL	1	41.3	1933			X			
FLAGELLATE #9	CEL			X						
FOUR CELLEC COLONY	COL					0.7	183			
FRAGILARIA CROTCNENSIS	CEL									X
GLENODINIUM EDAX	CEL						X			
GLENCDINIUM GYMNODINIUM	CEL						X			

LAKE NAME: RACCOON LAKE
STORET NUMBER: 1762

CONTINUED

TAXA	FORM	05 11 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
GOMPHONEMA PARVULUM	CEL			X						X
LEPOCINCLIS ACUTA ?	CEL			X						
LYNGBYA LIMNETICA	FIL								1.8	88
MELOSIRA DISTANS	CEL			X				2	14.7	702
MELOSIRA DISTANS V. LIMNETICA	CEL				5	3.9	1007			
MELOSIRA GRANULATA	CEL		0.7	31						X
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X			
MELOSIRA VARIANS	CEL			X						
MERISMOPEDIA TENUISSIMA	COL					2.5	641	1	25.0	1195
MICROCYSTIS INCERTA	COL					0.2	46			
NAVICULA #1	CEL									X
NAVICULA #2	CEL									X
NITZSCHIA #1	CEL									X
NITZSCHIA HOLSATICA	CEL								0.7	33
OSCILLATORIA	FIL							5	8.5	406
OSCILLATORIA LIMNETICA	FIL				1	64.5	16712			
PANDORINA MORUM	COL			X						
PENNATE DIATOM	CEL				4	4.8	1236	4	15.2	724
PHACUS	CEL		0.3	16						
PHACUS LONGICAUDA	CEL						X			
PHACUS PYRUM	CEL						X			
RAPHIDIOPSIS	FIL								0.7	33
RAPHIDIOPSIS CURVATA	FIL					3.4	870			X
SCENEDESMUS BICAUDATUS	COL					0.2	46			
SCENEDESMUS BIJUGA	COL		0.3	16						
SCENEDESMUS DIMORPHUS	COL								0.2	11
SCENEDESMUS PROTUBERANS	COL						X			
SCENEDESMUS QUADRICAUDA	COL								0.5	22
STAURASTRUM	CEL		0.3	16						
STEPHANODISCUS	CEL								5.3	252

LAKE NAME: RACCOCN LAKE
STORET NUMBER: 1762

CCNTINUED

TAXA	FORM	05 11 73			08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SYNEDRA	CEL		1.7	78						
TETRASTRUM	COL		0.7	31						
TETRASTRUM STAUROGENIAEFORME	COL								0.5	22
TRACHELCMONAS PULCHELLA	CEL					0.9	229			
TRACHELCMONAS PULCHELLA ?	CEL		2.0	94						X
TRACHELCMONAS URCEOLATA	CEL		0.3	16						
TRACHELCMONAS URCEOLATA ?	CEL						X			
TOTAL				4679			25915			4771

LAKE NAME: BALDWIN LAKE
STORET NUMBER: 1763

NYGAARD TROPHIC STATE INDICES

DATE	05 07 73	08 10 73	10 17 73
MYXOPHYCEAN	1.25 E	2.50 E	2.00 E
CHLOROPHYCEAN	3.50 E	3.00 E	6.33 E
EUGLENOPHYTE	0/19 ?	0.18 ?	0.08 ?
DIATOM	0.67 E	0.67 E	4.00 E
COMPOUND	5.25 E	7.50 E	10.3 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 07 73	08 10 73	10 17 73
GENUS	10	05	15
SPECIES	04	00	09

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		05 07 73	08 10 73	10 17 73
AVERAGE DIVERSITY	H	3.31	3.20	3.74
NUMBER OF TAXA	S	36.00	24.00	38.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.17	4.58	5.25
TOTAL DIVERSITY	D	14408.43	11072.00	17458.32
TOTAL NUMBER OF INDIVIDUALS/ML	N	4353.00	3460.00	4668.00
EVENESS COMPONENT	J	0.64	0.70	0.71
MEAN NUMBER CF INDIVIDUALS/TAXA	L	120.92	144.17	122.84
NUMBER/ML OF MOST ABUNDANT TAXON	K	866.00	877.00	1181.00

LAKE NAME: BALDWIN LAKE
STORET NUMBER: 1763

CONTINUED

		05 07 73			08 10 73			10 17 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM	CEL								1.1	52
ANABAENA	FIL						X			X
ANKISTRCDESMUS FALCATUS	CEL								2.2	105
CERATIUM HIRUNDINELLA	CEL			X						
CHILOMCNAS PARAMAECIUM	CEL						X			
CHLAMYDCMONAS	CEL		0.6	27						
CHLOROPHYTAN COLONY	COL								1.7	79
CHLOROPHYTAN PALMELLOID COLONY	COL			X						
CLCSTERIOPSIS LONGISSIMA V. TROPICA	CEL			X						
CLCSTERIUM	CEL			X					1.7	79
COCCOID COLONY	COL						X			
COELASTRUM	COL								1.1	52
COELASTRUM RETICULATUM	COL									X
COSMARIUM	CEL					1.3	45		0.6	26
CRUCIGENIA FENESTRATA	COL								2.2	105
CRUCIGENIA TETRAPEDIA	COL			X		0.6	22			
CRYPTOMONAS	CEL			X		3.9	135		0.6	26
CYCLOTELLA	CEL					7.1	247			
CYCLOTELLA MENEGHINIANA	CEL		0.6	27				3	9.0	420
CACTYLOCOCCOPSIS	CEL					4.5	157		4.5	210
DICTYOSPHAERIUM EHRENBERGIANUM	COL		2.5	108					1.7	79
EUASTRUM	CEL			X		0.6	22			
EUGLENA	CEL					0.6	22			X
FLAGELLATE #1	CEL		5.0	216		2.6	90		0.6	26
FRAGILARIA	CEL			X						
KIRCHNERIELLA	CEL	2	19.9	866		3.9	135			
LAGERHEIMIA	CEL									X
LUNATE CELLED COLONY	COL			X						
LYNGBYA LIMNFTICA	FIL				4	10.4	360			
MALLOMONAS	CEL			X						
MELOSIRA DISTANS	CEL							4	5.6	262

LAKE NAME: BALDWIN LAKE
STCRET NUMBER: 1753

CONTINUED

		05 07 73			08 10 73			10 17 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
MELOSIRA GRANULATA	CEL			X			X		1.1	52
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL									X
MERISMOPEDIA	COL			X					4.5	210
MERISMOPEDIA TENUISSIMA	COL				1	25.3	877			
MICROCYSTIS #2	COL		5.6	243						
MICROCYSTIS INCERTA	COL	3	11.8	514	3	11.7	405	2	20.2	945
NITZSCHIA	CEL			X					0.6	26
NITZSCHIA #1	CEL				2	18.2	629			
NITZSCHIA HOLSATICA ?	CEL				5	8.4	292			
NITZSCHIA TRYBLICNELLA	CEL						X			
NITZSCHIA VERMICULARIS	CEL			X						
OOCYSTIS	CEL			X						X
OSCILLATORIA #2	FIL	1	18.0	784						
OSCILLATORIA GEMINATA	FIL							5	5.1	236
CSCILLATORIA SUBBREVIS	FIL							1	25.3	1181
PEDIASTRUM BIRADIATUM	COL			X						
PEDIASTRUM BORYANUM	COL			X						
PEDIASTRUM DUPLEX V. ?	COL								1.1	52
PEDIASTRUM DUPLEX V. RETICULATUM	COL		0.6	27						
PEDIASTRUM SIMPLEX V. DUCDENARIUM	COL		0.6	27			X		1.7	79
PHACUS	CEL									X
PHACUS SWIRENKOI	CEL						X			
RAPHIDIOPSIS	FIL		4.3	189						
SCENEDESMUS BICAUDATUS	COL		2.5	108					0.6	26
SCENEDESMUS BIJUGA	COL		1.2	54						X
SCENEDESMUS DENTICULATUS	COL								0.6	26
SCENEDESMUS DIMORPHUS	COL								0.6	26
SCENEDESMUS INTERMEDIUS V. BICALDATUS	COL								0.6	26

LAKE NAME: BALDWIN LAKE
STORET NUMBER: 1763

CONTINUED

TAXA	FORM	05 07 73 S	05 07 73 %C	05 07 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
SCENEDESMUS PANNONICUS ?	COL		1.2	54						
SCENEDESMUS QUADRICAUDA	CCL	5	9.9	433			X		1.7	79
SCHROEDERIA SETIGERA	CEL								2.2	105
SPHAEROCYSTIS	COL								0.6	26
SPIROGYRA	FIL			X						
STAURASTRUM #1	CEL			X						X
STAURASTRUM #2	CEL		0.6	27						
TETRAEDRON GRACILE	CEL						X			
TETRASTRUM STAUROGENIAEFORME	COL	4	14.9	649					1.1	52
TREUBARIA SETIGERUM	CEL					0.6	22			
TOTAL				4353			3460			4668

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LAKE NAME: LAKE VANDALIA
STORET NUMBER: 1764

                                        NYGAARD TROPHIC STATE INDICES

                               DATE   05 11 73   08 10 73   10 18 73

                        MYXOPHYCEAN    3.00 E     06/0 E     9.00 E
                      CHLOROPHYCEAN    1.00 E     02/0 E     11.0 E
                       EUGLENOPHYTE    0.50 E     0.12 ?     0.10 ?
                             DIATOM    1.50 E     3.00 E     1.25 E
                           COMPOUND    9.00 E     12/0 E     27.0 E


                                        PALMER'S ORGANIC POLLUTION INDICES

                               DATE   05 11 73   08 10 73   10 18 73

                              GENUS         00         02         02
                            SPECIES         00         02         02


                                     SPECIES DIVERSITY AND ABUNDANCE INDICES

                               DATE     05 11 73   08 10 73   10 18 73

              AVERAGE DIVERSITY     H       2.65       2.53       3.26
                 NUMBER OF TAXA     S      18.00      16.00      36.00
    NUMBER OF SAMPLES COMPOSITED    M       3.00       3.00       3.00
              MAXIMUM DIVERSITY  MAXH       4.17       4.00       5.17
                TOTAL DIVERSITY     D    1643.00    3989.81    9111.70
  TOTAL NUMBER OF INDIVIDUALS/ML    N     620.00    1577.00    2795.00
              EVENESS COMPONENT     J       0.64       0.63       0.63
 MEAN NUMBER OF INDIVIDUALS/TAXA    L      34.44      98.56      77.64
NUMBER/ML OF MOST ABUNDANT TAXON    K     133.00     712.00     799.00
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LAKE NAME: LAKE VANCALIA CONTINUED
STCRET NUMBER: 1764

TAXA	FORM	05 11 73			08 10 73			10 18 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
AMPHIPRCRA	CEL									X
ANABAENA SCHEREMETIEVI	FIL							4	2.1	58
APHANIZCMENON	FIL								1.6	44
APHANIZCMENON FLCS-AQUAE	FIL						X			
CHILCMONAS	CEL								0.5	15
CHLAMYDCMONAS ?	CEL			X						X
CHRCOCCCCUS ? MINOR	COL									X
CLOSTERIUM	CEL			X						
CLCSTERIUM CERATIUM ?	CEL									X
COCCONEIS	CEL					1.2	19			
COELASTRUM	COL								0.5	15
COELOSPHAERIUM KUETZINGIANUM	COL				1	45.1	712			
CCELOSPHAERIUM PALLIDUM	COL							1	28.6	799
CRYPTOMONAS EROSA	CEL			X				5	4.7	131
CRYPTOMCNAS EROSA ?	CEL					1.2	19			
CRYPTOMONAS REFLEXA	CEL			X						
CRYPTOMCNAS SPP.	CEL	2	21.5	133						
CYANOPHYTAN COCCGID CELLED COLONY	CEL			X						
CYANOPHYTAN FILAMENT	FIL				5	17.1	269			
CYCLOTELLA MENEGHINIANA	CEL				3	8.6	135		4.2	116
DACTYLOCOCCOPSIS	CEL	3	21.5	133						X
DICTYOSPHAERIUM	COL								0.5	15
CICTYCSPHAERIUM EHRENBERGIANUM	COL									X
DINOBRYCN ?	CEL			X						
EUGLENA	CEL								0.5	15
EUGLENA CXYURIS V. MINOR	CEL			X						
FLAGELLATE	CEL						X			
FLAGELLATE #1	CEL	5	14.4	89				5	6.2	174
GCMPHONEMA	CEL			X						
KIRCHNERIELLA	CEL			X					1.0	29
LEPOCINCLIS ?	CEL					1.2	19			

LAKE NAME: LAKE VANDALIA CONTINUED
STORET NUMBER: 1764

		05 11 73			08 10 73			10 18 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
LYNGBYA	FIL		7.1	44						
MALLOMONAS	CEL						X			
MELOSIRA	CEL	4	7.1	44						
MELOSIRA DISTANS ?	CEL						X			
MELOSIRA GRANULATA	CEL			X	2	12.2	192			X
MELOSIRA ITALICA	CEL								1.6	44
MERISMOPEDIA	COL								0.5	15
MERISMOPEDIA ELEGANS	COL				4	4.9	77			
MERISMOPEDIA PUNCTATA	COL					2.5	39			
MICRACTINIUM	COL								0.5	15
MICROCYSTIS	COL							2	26.0	727
MICROCYSTIS INCERTA	COL							3	8.8	247
NAVICULA	CEL								0.5	15
NITZSCHIA	CEL									X
OOCYSTIS	CEL								1.0	29
OSCILLATORIA	FIL								1.0	29
PEDIASTRUM	COL									X
PENNATE DIATOM	CEL		7.1	44						
RAPHIDIOPSIS	FIL					1.2	19			
SCENEDESMUS	COL								1.6	44
SCENEDESMUS BICAUDATUS	COL					1.2	19			
SCHROEDERIA	CEL					3.7	58		5.2	145
STAURONEIS ?	CEL									X
STEPHANODISCUS	CEL			X					0.5	15
STEPHANODISCUS NIAGARAE	CEL									X
TETRAEDRON LIMNETICUM	CEL								0.5	15
TETRASTRUM STAUROGENIAEFORME	COL									X
TRACHELOMONAS	CEL	1	21.5	133					1.6	44
TOTAL				620			1577			2795

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LAKE NAME: OLD BEN MINE RES.
STORET NUMBER: 1765

                                NYGAARD TROPHIC STATE INDICES

                          DATE   08 08 73   10 19 73

                   MYXOPHYCEAN    3.00 E     3.50 E
                 CHLOROPHYCEAN    6.00 E    12.0 E
                 EUGLENOPHYTE     0.44 E     0.45 E
                       DIATOM     1.00 E     1.00 E
                     COMPOUND    14.5 E     24.5 E

                              PALMER'S ORGANIC POLLUTION INDICES

                          DATE   08 08 73   10 19 73

                         GENUS        23         24
                       SPECIES        04         04

                          SPECIES DIVERSITY AND ABUNDANCE INDICES

                          DATE   08 08 73   10 19 73

            AVERAGE DIVERSITY    H       3.63       3.58
               NUMBER OF TAXA    S      43.00      65.00
   NUMBER OF SAMPLES COMPOSITED  M       1.00       1.00
            MAXIMUM DIVERSITY MAXH       5.43       6.02
              TOTAL DIVERSITY    D  109212.18  103512.12
  TOTAL NUMBER OF INDIVIDUALS/ML N   30086.00   28914.00
            EVENESS COMPONENT    J       0.67       0.59
  MEAN NUMBER OF INDIVIDUALS/TAXA L    699.67     444.83
 NUMBER/ML OF MOST ABUNDANT TAXON K   6855.00    7011.00
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5

LAKE NAME: OLD BEN MINE RES.
STCRET NUMBER: 1765

CONTINUED

TAXA	FORM	08 08 73			10 19 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
ACTINASTRUM GRACILIMUM	COL						X
ANABAENOPSIS ELENKINII	FIL			X			
ANKISTRODESMUS FALCATUS	CEL		0.6	178		0.7	200
CARTERIA	CEL	1	14.5	4362			
CHLOROGCNIUM	CEL		0.9	267			
CHROOCOCCUS	COL					0.7	200
CHRYSOPHYTAN FLAGELLATE	CEL		5.0	1513		0.7	200
CLCSTERIUM #1	CEL			X			X
CLCSTERIUM #2	CEL			X			X
COCCONEIS PLACENTULA							
V. LINEATA	CEL			X			
COELASTRUM	COL						X
CRUCIGENIA APICULATA	COL			X		0.2	67
CRUCIGENIA TETRAPEDIA	COL		0.3	89		0.7	200
CRYPTOMONAS	CEL					0.9	267
CRYPTOMCNAS EROSA	CEL	3	6.2	1870			
CYCLOTELLA	CEL				2	8.5	2471
CYCLOTELLA GLOMERATA ?	CEL	4	16.0	5429			
CYCLOTELLA MENEGHINIANA	CEL			X			X
CACTYLOCCCCOPSIS	CEL		2.4	712		1.2	334
DICTYOSPHAERIUM PULCHELLUM	COL		0.9	267		0.5	134
ELAKATOTHRIX ?	COL					0.2	67
EUGLENA	CEL			X		0.7	200
EUGLENA ACUS	CEL			X			
EUGLENA ACUS ?	CEL						X
EUGLENA GRACILIS	CEL	5	2.7	801		0.2	67
EUGLENA OXYURIS							
V. MINOR	CEL			X			X
FLAGELLATE #2	CEL					0.2	67
FLAGELLATES	CEL		4.7	1424	4	12.0	3472
GLENCDINIUM	CEL		0.3	89			X
GLENODINIUM EDAX	CEL					0.2	67

LAKE NAME: OLD BEN MINE RES.
STCRET NUMBER: 1755

CCNTINUED

TAXA	FCRM	08 08 73 S	08 08 73 %C	08 08 73 ALGAL UNITS PER ML	10 19 73 S	10 19 73 %C	10 19 73 ALGAL UNITS PER ML
KIRCHNERIELLA	CEL		2.1	623	5	17.6	5075
LEPOCINCLIS	CEL						X
LEPOCINCLIS FUSIFORMIS ?	CEL		0.3	89			
MELOSIRA #4	CEL					1.2	334
MERISMOPEDIA	COL					0.9	267
MERISMOPEDIA PUNCTATA ?	COL		0.9	267			
MERISMOPEDIA TENUISSIMA	COL		5.3	1602		3.9	1135
MESOSTIGMA VIRIDIS ?	CEL			X		0.2	67
MICROCYSTIS INCEPTA	COL			X		0.2	67
NITZSCHIA	CEL		0.3	89			
NITZSCHIA #1	CEL					0.9	267
NITZSCHIA #2	CEL					0.9	267
NITZSCHIA #3	CEL						X
OSCILLATORIA GEMINATA	FIL	2	22.8	6855			
OSCILLATORIA LIMNETICA	FIL					0.2	67
PEDIASTRUM BIRADIATUM	COL						X
PEDIASTRUM TETRAS V. TETRAODON	COL						X
PENNATE DIATOM	CEL		0.3	89			
PHACUS	CEL						X
PHACUS ACUMINATUS	CEL			X			
PHACUS ACUMINATUS ?	CEL						X
PHACUS HELIKOIDES	CEL		0.3	89			X
PHACUS LEMMERMANII ?	CEL						X
PHACUS PYRUM	CEL			X		0.7	200
PTEROMONAS	CEL		1.5	445		1.8	534
RAPHIDIOPSIS CURVATA	FIL					0.2	67
SCENEDESMUS	COL			X			
SCENEDESMUS BICAUDATUS	COL		0.9	267			X
SCENEDESMUS BIJUGA	COL				3	13.9	4006
SCENEDESMUS DENTICULATUS	COL		0.3	89			X
SCENEDESMUS DIMORPHUS	COL					0.5	134

LAKE NAME: OLD BEN MINE RES. CONTINUED
STORET NUMBER: 1765

		08 08 73			10 19 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SCENEDESMUS ECORNIS V. DISCIFORMIS	CCL		1.5	445		0.7	200
SCENEDESMUS INTERMEDIUS	COL						X
SCENEDESMUS INTERMEDIUS V. BALATONICUS	COL					1.4	401
SCENEDESMUS QUADRICAUDA	COL						X
SCENEDESMUS SPP.	COL					0.7	200
SCHROEDERIA SETIGERA	CEL					0.5	134
SPERMATOZOOPSIS	CEL		0.3	89			X
STEPHANODISCUS	CEL				1	24.2	7011
STEPHANODISCUS ASTRAEA V. MINUTULA ?	CEL		4.4	1335			
SYNEDRA	CEL						X
TETRAEDRON	CEL					0.9	267
TETRAEDRON GRACILE	CEL			X			
TETRAEDRON MINIMUM	CEL					0.2	67
TETRAEDRON MUTICUM	CEL		1.2	356			X
TETRAEDRON TUMIDULUM	CEL						X
TETRASTRUM ELEGANS	COL						X
TETRASTRUM STAUROGENIAEFORME	COL		1.2	356			
TRACHELOMONAS	CEL						X
TRACHELOMONAS URCEOLATA ?	CEL						X
TRACHELOMONAS VOLVOCINA	CEL					0.5	134
TRACHELOMONAS VOLVOCINA V. PUNCTATA	CEL						X
TOTAL				30086			28914

LAKE NAME: HORSESHOE LAKE
STORET NUMBER: 1766

NYGAARD TROPHIC STATE INDICES

DATE	05 07 73	08 10 73	10 17 73
MYXOPHYCEAN	7.00 E	6.50 E	16.0 E
CHLOROPHYCEAN	17.0 E	9.50 E	19.0 E
EUGLENOPHYTE	0.04 ?	0.09 ?	0.06 ?
DIATOM	0.40 E	0.50 E	0.67 E
COMPOUND	29.0 E	20.0 E	43.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 07 73	08 10 73	10 17 73
GENUS	23	24	25
SPECIES	12	05	10

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	05 07 73	08 10 73	10 17 73
AVERAGE DIVERSITY	H	2.38	2.96	2.93
NUMBER OF TAXA	S	42.00	55.00	56.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.39	5.78	5.81
TOTAL DIVERSITY	D	290007.76	377355.60	255314.34
TOTAL NUMBER OF INDIVIDUALS/ML	N	121852.00	127485.00	87138.00
EVENESS COMPONENT	J	0.44	0.51	0.50
MEAN NUMBER OF INDIVIDUALS/TAXA	L	2901.24	2317.91	1556.04
NUMBER/ML OF MOST ABUNDANT TAXON	K	53701.00	51017.00	45460.00

LAKE NAME: HORSESHOE LAKE
STORET NUMBER: 1755

CONTINUED

TAXA	FORM	05 07 73 S	05 07 73 %C	05 07 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII	CEL			X						
ACTINASTRUM TENUISSIMA	CEL		1.1	1294						
AMPHORA	CEL					0.1	188			
AMPHORA OVALIS ?	CEL									X
ANABAENA	FIL						X			
ANABAENOPSIS	FIL								0.2	164
ANABAENOPSIS ELENKINII	FIL					0.7	941			
ANABAENOPSIS RACIBORSKII	FIL				3	4.6	5836			
ANKISTRODESMUS FALCATUS	CEL		0.9	1078		0.3	377		0.2	164
APHANIZOMENON FLOS-AQUAE	FIL		0.5	647						
APHANOTHECE	COL								0.6	491
APHANOTHECE NIDULANS	CEL									X
CARTERIA	CEL									X
CENTRIC DIATOMS	CEL					0.6	753			
CHROOCOCCUS	COL		0.4	431		2.5	3200			
CHROOCOCCUS LIMNETICUS	COL								0.4	327
CHROOCOCCUS LIMNETICUS V. SUBSALSUS	COL									X
CHROOCOCCUS RUFESCENS	COL								1.7	1472
CLOSTERIUM	CEL						X			
COELASTRUM MICROPORUM	COL			X						
COELASTRUM RETICULATUM	COL						X			X
COELASTRUM SPHAERICUM	COL						X		0.2	164
COSMARIUM	CEL						X			
CRUCIGENIA	COL						X			
CRYPTOMONAS EROSA	CEL			X					1.5	1308
CYANOPHYTAN COCCOID CELLED COLONY	COL		0.5	647						
CYCLOTELLA MENEGHINIANA	CEL			X			X		1.1	981
CYCLOTELLA STELLIGERA	CEL			X						
DACTYLOCOCCOPSIS	CEL		1.8	2157						
DACTYLOCOCCOPSIS ?	CEL									X
DIATOMA TENUE V. ELONGATUM	CEL			X						

LAKE NAME: HORSESHOE LAKE
STORET NUMBER: 1766

CONTINUED

TAXA	FORM	05 07 73			08 10 73			10 17 73		
		S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
DICTYOSPHAERIUM PULCHELLUM	COL			X						X
EUGLENA	CEL		0.2	216			X			X
EUGLENA #1	CEL								0.4	327
EUGLENA GRACILIS	CEL					0.4	565			
FLAGELLATES	CEL	4	4.2	5176		3.2	4142	5	5.2	4552
FRAGILARIA CONSTRUENS V. VENTER	CEL			X		1.5	1882			
GLENODINIUM	CEL						X			
GOLENKINIA PAUCISPINA	CEL		0.2	216						
GOLENKINIA PAUCISPINA ?	CEL						X			
GOLENKINIA RADIATA	CEL								0.4	327
KIRCHNERIELLA	CEL									X
KIRCHNERIELLA LUNARIS V. IRREGULARIS	CEL						X			
LAGERHEIMIA WRATISLAVIENSIS	CEL			X						
LYNGBYA CONTORTA	FIL			X	4	8.7	11107	2	12.2	10629
MELOSIRA #4	CEL									X
MELOSIRA DISTANS	CEL						X		0.8	654
MELOSIRA GRANULATA	CEL	3	1.9	2372			X		0.4	327
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL					0.3	377			X
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL									X
MERISMOPEDIA #1	COL					3.8	4895			
MERISMOPEDIA PUNCTATA	COL								2.1	1799
MERISMOPEDIA TENUISSIMA	COL	5	3.9	4745	5	5.6	7154		2.8	2453
MICRACTINIUM	COL			X						
MICROCYSTIS #1	COL					0.9	1129		0.9	818
MICROCYSTIS AERUGINOSA	COL						X			
MICROCYSTIS INCERTA	COL					1.3	1694		0.4	327
NAVICULA	CEL			X						
NAVICULA #1	CEL					0.1	188			X

LAKE NAME: HORSESHOE LAKE
STCRET NUMBER: 1766

CONTINUED

TAXA	FORM	05 07 73 S	05 07 73 %C	05 07 73 ALGAL UNITS PER ML	08 10 73 S	08 10 73 %C	08 10 73 ALGAL UNITS PER ML	10 17 73 S	10 17 73 %C	10 17 73 ALGAL UNITS PER ML
NAVICULA CAPITATA	CEL			X						
NAVICULA CUSPIDATA V. AMBIGUA	CEL						X			
NAVICULA PYGMAEA	CEL						X			
NITZSCHIA	CEL						X			X
NITZSCHIA #2	CEL								0.4	327
NITZSCHIA ACICULARIS	CEL			X		1.8	2295			
NITZSCHIA ACICULARIS ?	CEL								0.6	491
NITZSCHIA PALEA	CEL		1.9	2372						
COCYSTIS	CEL		0.2	216						X
OSCILLATORIA	FIL						X			
OSCILLATORIA LIMNETICA	FIL	1	44.1	53701	1	20.5	26167	3	3.0	2616
PEDIASTRUM BORYANUM	COL			X						X
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X			
PEDIASTRUM SIMPLEX	COL									
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X			
PEDIASTRUM TETRAS V. TETRAODON	COL						X			
PENNATE DIATOM	CEL								0.2	164
PENNATE DIATOMS	CEL					0.4	565			
PHACUS PYRUM	CEL						X			
PHORMIDIUM ?	FIL								4.7	4088
RAPHIDIOPSIS ?	FIL							4	2.8	2453
RAPHIDIOPSIS CURVATA	FIL				2	40.0	51017	1	52.2	45460
SCENEDESMUS ABUNDANS	COL		1.2	1510			X		0.4	327
SCENEDESMUS ACUMINATUS	COL					0.3	377		0.2	164
SCENEDESMUS BIJUGA V. ALTERNANS	COL								0.2	164
SCENEDESMUS DIMORPHUS	COL			X			X		0.8	654
SCENEDESMUS INTERMEDIUS	COL								0.2	164

LAKE NAME: HORSESHOE LAKE
STCRET NUMBER: 1766

CONTINUED

		05 07 73			08 10 73			10 17 73		
TAXA	FORM	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML	S	%C	ALGAL UNITS PER ML
SCENEDESMUS OPOLIENSIS	COL						X		0.2	164
SCENEDESMUS QUADRICAUDA	COL		0.4	431			X		1.1	981
SCENEDESMUS SPP.	COL		1.9	2372		1.6	2071			
SCHROEDERIA SETIGERA	CEL			X		0.1	188		0.2	164
SELENASTRUM ?	CEL								0.8	654
SELENASTRUM GRACILE	COL		0.4	431						
STAURASTRUM TETRACERUM	CEL			X						X
STEPHANODISCUS	CEL		0.7	863						
SURIRELLA ANGUSTATA	CEL			X						X
SURIRELLA CVATA ?	CEL						X			
SYNEDRA DELICATISSIMA	CEL			X						
SYNEDRA DELICATISSIMA ?	CEL		0.7	863						
SYNEDRA RADIANS	CEL								0.6	491
SYNEDRA RUMPENS	CEL	2	32.9	40114			X			X
TETRAEDRCN CAUDATUM	CEL								0.2	164
TETRAEDRCN CAUDATUM V. ?	CEL						X			
TETRAEDRCN CAUDATUM V. LONGISPINUM	CEL			X						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					0.3	377			
TETRASTRUM STAUROGENIAEFORME	COL						X		0.2	164
TREUBARIA	CEL						X			
TOTAL				121852			127485			87138

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